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TWO DENARIUS HOARDS FROM BIRNIE, MORAY

N.M.McQ. HOLMES

WITH A CONTRIBUTION BY K. EREMIN AND J. TATE

THIS paper will describe and discuss the significance of two hoards of Roman silver denarii found within a few metres of each other on what proved to be an important settlement site at Birnie, near Elgin, Moray (Fig. 1) – the first between 1996 and 2000, and the second in 2001.

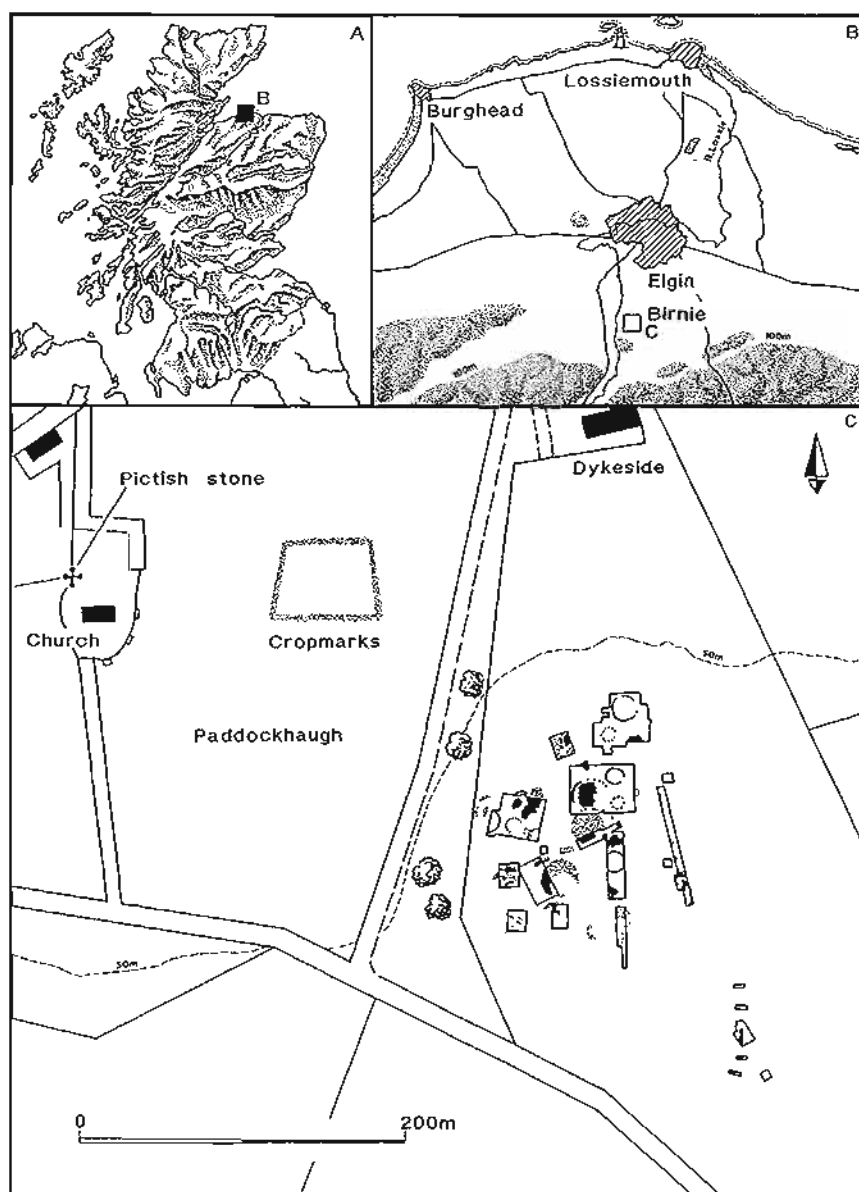


Fig. 1. Location of Birnie and general site plan.

Background

The initial discovery took the form of eighteen coins, one of which was lost before being recorded, found by Mr Hamish Stuart, of Elgin, while metal-detecting at Dykeside Farm in 1996. These coins, from the reigns of Vespasian to Septimius Severus, were claimed as Treasure Trove and allocated to Elgin Museum. Because the coins had been found in the vicinity of a known later prehistoric settlement, located by aerial photography, an archaeological investigation of the site was commenced, under the direction of Fraser Hunter, of the Department of Archaeology, National Museums of Scotland. At the time of writing, the excavation project is still in progress. Further denarii were found in 1998 (two) and in 1999 (eight), and in 2000 the excavators were rewarded by the discovery of, first, a large concentration of coins, and finally the residue of the hoard contained within a broken pottery vessel of native Iron Age manufacture. The pot had clearly been hit by a plough, which broke off the upper part, with many of the coins subsequently spread throughout the surrounding soil. In all, 315 coins were recovered, including the previous years' finds and the remains of a highly corroded plated base metal forgery. The burial place of the hoard proved to be just outside the wall of a substantial round house. (A further two dispersed coins were found during excavations in September 2005, after the completion of this paper. They do not alter the profile of the hoard, and are listed as coins A and B in an appendix to the catalogue of hoard 1 below.)

During the 2001 excavation season a second hoard, this time undisturbed by ploughing, and also contained within a native ware pottery vessel, was discovered just ten metres from the burial place of the first. This comprised 310 coins, contained within two small leather bags.

Description

The archaeological aspects of the hoards and their context will not be discussed in detail here, as they will be covered more appropriately in the excavation report, but a brief description of the pottery vessels and their contents will be necessary to permit a consideration of the circumstances which may have surrounded the burial of the hoards. It will become clear that the non-numismatic aspects of these two hoards offer clues to the interpretation of the accumulations of coins found here, and by derivation of other similar assemblages from non-military sites in Scotland.

Hoard 1

The residue of the hoard after plough disturbance was contained within the lower part of a pottery jar of native Iron Age manufacture (Fig. 2b). The vessel had been lined with bracken, and it contained fragments of leather and string. Analysis of the leather has indicated that it probably came from a pouch. Evidence of vegetable-tanning indicates that it is of Roman manufacture, and there are stitch-holes for a seam. The string is made from a fine white wool, suggesting an origin in southern Britain, where new white-fleeced stock had been introduced by the Romans. (Interestingly, a piece of textile made from similar wool was found in association with the Falkirk coin hoard, discovered in 1933.) Unfortunately, because of the disturbance, it has been impossible to determine how many of the coins were originally contained within the pouch and how many may have been loose in the pot.

Hoard 2

The vessel which contained this hoard had remained almost entirely intact, and is a typical Roman Iron Age globular jar with everted rim (Fig. 2a). There was no evidence of lining material, although fragments of vegetation were present, and the coins were contained within two fairly well preserved leather bags, one containing 160 denarii and the other 150 (Fig. 3). The leather is thinner and finer than that found in the first pot, and not vegetable-tanned, and the stitching is of better quality. Each bag was made from a rectangular strip stitched onto a circular base, sewn up at one side and tied at the top with a twisted leather cord. Such bags are unparalleled among

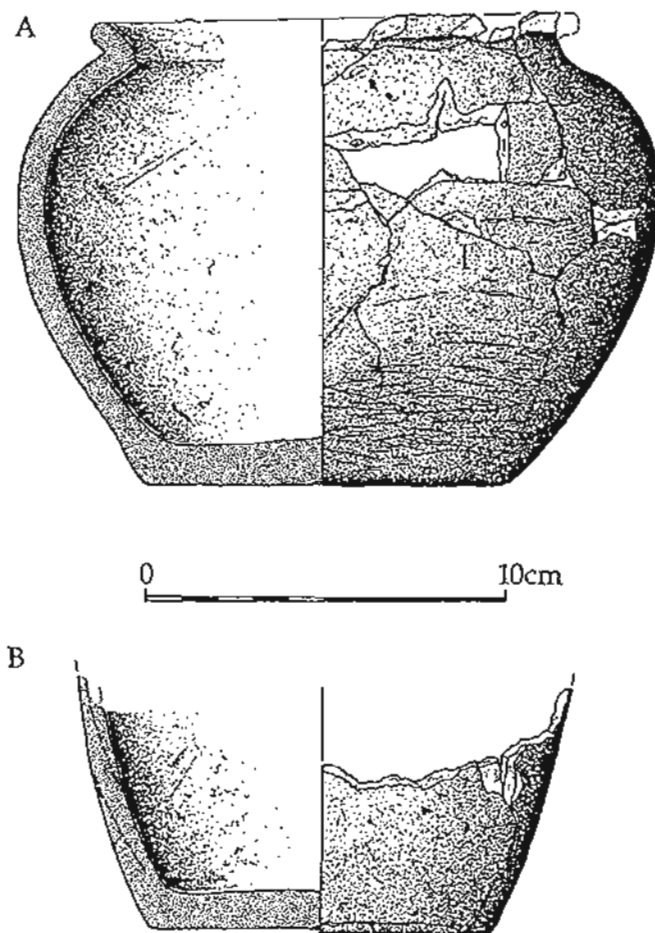


Fig. 2. Pottery vessels. A: hoard 2; B: hoard 1.

known specimens from the Roman world, where such items were mass-produced, and they were probably made locally.¹

The coins

The contents of the two hoards proved to be largely similar, and are summarised in Table 1 (excluding the corroded forgery).

The latest coins of Septimius Severus in Hoard 1 date from the years between AD 194 and 196, whilst the one denarius of Julia Domna belongs to a group dated only to AD 196–211. The absence of any more closely dated coins minted after 196 suggests that the formation of the hoard closed in that year or very shortly thereafter. Hoard 2, with no Severan coins at all and a much smaller proportion of issues from the reign of Commodus, may date from a little earlier, but the two may be assumed to have been deposited as part of the same process, whatever that may have been.

Within hoard 2, it is worth listing the contents of the two leather bags separately, in case there should be anything to suggest that one set of coins may have been put together earlier than the

¹ I am grateful to my colleague, Fraser Hunter, for information on the archaeological background to the hoards and on the pottery vessels and their non-numismatic contents. Published information about the site may be found in Hunter 2002. Analysis of the plant remains continues at the University of Glasgow, by Diane Currie and Professor Jim Dixon. Analysis of the leather is by Katherine Ridgway and Dr Carol van Driel-Murray, and of the string by Penelope Walton Rogers.



Fig. 3. Hoard 2, showing bags of coins within pottery vessel.

other. Grouping the coins into chronological periods, the actual and per thousand figures are as follows (Table 2).

These figures demonstrate that bag 2 contained a higher proportion of Flavian and Trajanic coins, and a correspondingly lower proportion of Hadrianic and Antonine issues, than bag 1. However, bag 2 also had more denarii of the reign of Commodus, whilst the latest coin of all, the Pertinax, was in bag 1. Overall, this does not seem to lead to any definite conclusions, but a more authoritative opinion was sought from Mike Baxter, Professor of Statistical Archaeology at Nottingham Trent University. Professor Baxter applied various procedures to the figures – most pertinently Fisher's exact test and a Kolmogorov-Smirnov 2-sample test – and concluded that there was no statistical evidence to contradict a hypothesis that the contents of both bags were drawn from the same coin pool.

Analysis: aims and methods

These hoards raise a number of important questions, some specific and some more wide-ranging. Here are two substantial hoards of Roman denarii, buried in native ware pottery vessels in an intensively occupied area of an Iron Age settlement, at a time between the accepted dates for the withdrawal of Roman troops from the Antonine Wall frontier and the commencement of Severus's campaigns against the Caledonii and Maeatae, and in a part of Scotland then inhabited by just those hostile peoples. The obvious questions are – how did the coins get there, and why were they buried on that site? Do the exact burial sites and the nature of the hoards offer any clues?

There are also wider questions relating to the entire situation north of Hadrian's Wall in the later second century AD. Can the Birnie hoards offer clues as to Roman attitudes to the peoples of

TABLE 1. Contents of the Birnie hoards

	<i>Hoard 1</i>	<i>Hoard 2</i>
Nero	2	3
Galba	6	-
Otho	-	1
Vitellius	1	1
Vespasian	26	29
for Titus	6	4
for Domitian	5	2
Titus	4	2
for Domitian	1	4
for Julia Titi	1	1
for Divus Vespasian	-	2
Domitian	4	8
cast forgery	1	-
Nerva	2	1
Trajan	47	65
Lycian drachm	1	-
Hadrian	40	43
Lycian drachm	1	-
for Sabina	5	3
for Antoninus Pius	1	1
Antoninus Pius	28	35
for Faustina I	2	1
for Diva Faustina I	17	18
with Marcus Aurelius	-	1
for Marcus Aurelius	10	11
for Faustina II	4	9
Marcus Aurelius	25	12
for Divus Antoninus Pius	5	8
Lucius Verus	7	10
Marcus Aurelius for Divus Lucius Verus	-	1
for Commodus	-	3
for Faustina II	15	8
for Diva Faustina II	2	3
for Lucilla	4	4
Commodus	27	11
for Divus Marcus Aurelius	5	1
for Crispina	2	3
Pertinax	-	1
Septimius Severus	6	-
for Julia Domna	1	-
Total	314	310

TABLE 2. Contents of bags 1 and 2, Birnie hoard 2

	<i>Bag 1</i>		<i>Bag 2</i>	
	<i>coins</i>	<i>per thousand</i>	<i>coins</i>	<i>per thousand</i>
AD 64-69	4	25.0	1	6.7
AD 69-79	17	106.3	18	120.0
AD 79-96	7	43.8	10	66.7
AD 96-117	32	200.0	34	226.7
AD 117-138	27	168.8	20	133.3
AD 138-161	41	256.3	34	226.7
AD 161-180	27	168.8	22	146.7
AD 180-193	5	31.3	11	73.3

'barbaricum' at that time, and indeed to Roman frontier policy in general? Can coin finds indicate any alterations to these attitudes and policy before, during and after the military campaigns of the early third century? Can we deduce anything about the attitudes of the native people of north-east Scotland to Roman coinage?

In the hope of providing some answers, the Birnie hoards will be assessed in comparison with a number of different groups of material. These will comprise the following:

- (1) Other Scottish hoards of later second century date. There are a number of these, almost all unfortunately found a very long while ago and inadequately recorded, but possibly forming a group to which Birnie 1 and 2 can now be added.
- (2) Early Severan hoards from south of Hadrian's Wall. This may indicate whether the Scottish hoards are 'typical' of the period or are in some way unusual.
- (3) Site finds from the two Roman military bases known to have been occupied during the campaigns of Severus – at Cramond and Carpow. Are the coins found in the hoards comparable with those in use by the army just a few years later?
- (4) The two Scottish denarius hoards which post-date the Severan campaigns – from Falkirk and Edston. Did the military action merely interrupt an otherwise continuous flow of coins into the hands of people beyond the frontier, or are there clear differences between what went before and what followed it?
- (5) Finally, note needs to be taken of the pattern of continental hoards from 'barbaricum', to see whether the situation in Scotland may be comparable to what was happening elsewhere, indicating a common Roman policy across the northern frontier of the empire.

The Birnie hoards in the Scottish context

It is generally accepted by scholars of the Romano-British period that the Antonine Wall frontier was abandoned in the early 160s AD, and that for some time thereafter Roman troops continued to be based at outpost forts to the north of Hadrian's Wall, on both the east and west sides of the country, with mobile patrols also active in this area, particularly in Northumberland and south-east Scotland – the territory of the Votadini.² There were military campaigns, still poorly understood, in the northern frontier area during the reign of Commodus, and much better documented conflict under Severus. The emperor himself is recorded as arriving in Britain in AD 208, but campaigning may have taken place for some years prior to this.³

Against this background must be set the discovery, over more than 300 years, of a number of hoards of Roman coins apparently buried during this period in locations to the north of Hadrian's Wall. Very few of these were discovered even as recently as the twentieth century, and consequently detailed comparison is impossible in almost every case, but a list of the hoards at this juncture will indicate that the inflow of coins into areas north of the frontier and the practice of concealing groups of them are both likely to have been relatively common.

In each case the number prefaced by an R constitutes a reference to Anne Robertson's corpus of Romano-British hoards.⁴

Hoards closing with coins of the reign of Marcus Aurelius

Carstairs, Lanarkshire (1781) (R 266): 'a hundred or more' bronze coins.

West Calder, West Lothian (1810) (R 267): unknown number, silver.

Linlithgow, West Lothian (1781) (R 268): 'about 300' silver.

Mindrum, Northumberland (1826) (R 274): '500/600/nearly 700' silver, according to different accounts.

Kirkintilloch, Dunbartonshire (1893) (R 282): possibly 47 silver.

² Hanson and Maxwell 1986, 194.

³ Hanson and Maxwell 1986, 203.

⁴ Robertson 2000.

Hoards closing with coins of the reign of Commodus

Briglands (Rumbling Bridge), Kinross-shire (1938, 1948–57) (R 335): 180 silver to AD 186–7 (for location see Fig. 4).

Leuchars (Pitcullo), Fife (1781) (R 345): 19 silver.

Shotts, Lanarkshire (1842) (R 346): ‘several hundred’ silver.

Strathaven (Avondale), Lanarkshire (1803) (R 347): ‘about 400’ silver.

Muthill, Perthshire (c.1672) (R 348): ‘a considerable deal of monye’ in silver.

Broch of Lingrow, Orkney (1870–1) (R 349): 4 silver.

Inchyra, Perthshire (1993) (R –, *CHRB* XI, 119–20)⁵: 8 silver.

Hoards closing with coins of the reign of Septimius Severus (see Fig. 4)

Cowie Moss, Fetteresso, Kincardineshire (1843) (R 367): unknown number, silver.

Megray, Fetteresso, Kincardineshire (1852) (R 368): ‘upwards of 200’ silver.

Portmoak, Kinross-shire (1851) (R 369): ‘upwards of 600’ silver.

Leuchars, Fife (1808) (R 376): ‘nearly 100’ silver.

Clearly it is the group of Severan hoards which might be expected to display the greatest similarity in content to those from Birnie, and it is thus unfortunate that no complete list of any of them was ever compiled. In the case of Megray and Portmoak, however, some of the coins at least were selected and identified as to reign. How useful this information is must depend on how much one trusts those who selected the coins to have chosen examples of all the members of imperial families portrayed on coins in the hoards. Since in both cases those responsible seem to have been respected Fellows of the Society of Antiquaries of Scotland, it is probably in order to trust their competence in this respect. Clearly the selections can not be expected to reflect accurately how many coins of each reign were in the hoards, but they may at least be regarded as reliable guides to the overall date range represented.

Of the 600+ denarii supposedly making up the Portmoak hoard, 104 were listed soon after the discovery and a further 26 by Sir George Macdonald in 1939. Of these, 49 are now in the collections of the National Museums of Scotland. Of the total of more than 200 coins from Megray, just 20 were listed, these having been presented to the Society of Antiquaries of Scotland. These are also still in the NMS collections. The latest coins recorded date from AD 196–7 (Portmoak) and AD 201–10, probably 203 (Megray). The lists are shown in Table 3.

Although the internal distribution within these lists may or may not reflect that of the two hoards as a whole, it is clear that they resemble those from Birnie at least to the extent that the coins are taken from the period between the reign of Nero and the 190s–200s AD.

The only hoard featuring in the above list, apart from the very small group from Inchyra, which may be regarded as having been recorded more or less in its entirety is that from Briglands, Rumbling Bridge. This is a strange hoard, since it was recovered intermittently over a period of almost twenty years, as related in Robertson’s *Inventory*, but it seems probable that at least the vast majority of the coins have been found. These total 180, of which all but two are in the collections of the National Museums of Scotland. The latest coin is of Commodus, dating from AD 186–7, and the contents are recorded in Table 4.

Comparison of the internal distribution of this hoard and those from Birnie will be attempted below, alongside a similar analysis of some English hoards. In view of the inadequate recording of all the other Scottish hoards, it will not be possible to include any of them in more detailed analysis, but at this point it is worth noting that, apart from a single example included in the group from Portmoak recorded in the 1930s, no legionary denarii of Mark Antony have been recorded in any of these hoards from north of the frontier. The possible significance of this will be discussed later.

⁵ Bateson and Hall 2002.

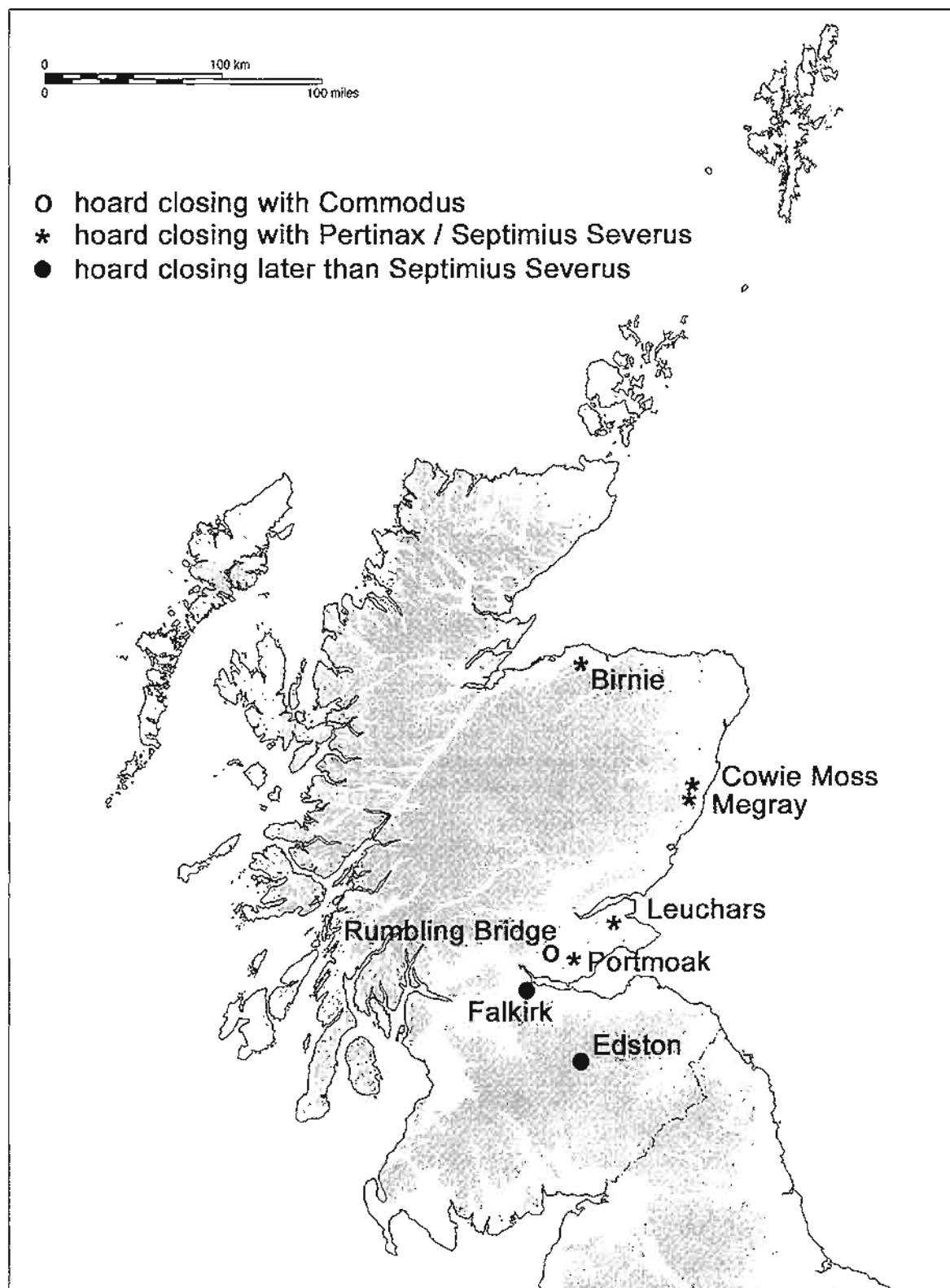


Fig. 4. Scottish denarius hoards closing with coins of the late second and early third centuries.

TABLE 3. Contents of the Portmoak and Megray hoards

	<i>Portmoak</i>	<i>Megray</i>
Mark Antony	1	—
Nero	1	—
Galba	2	1
Otho	1	—
Vitellius	3	—
Vespasian	6	1
for Titus	1	1
Titus	2	—
for Divus Vespasian	1	—
for Domitian	1	—
Domitian	3	—
Nerva	2	—
Trajan	13	2
Hadrian	18	3
for Sabina	1	—
Antoninus Pius	22	3
for Divus Hadrian	1	—
for Faustina I (including deified)	13	2
for Marcus Aurelius	4	1
Marcus Aurelius	8	2
for Divus Antoninus Pius	2	—
for Faustina II	6	—
for Lucilla	4	—
for Commodus	1	—
Lucius Verus	3	—
Commodus	7	1
for Divus Marcus Aurelius	1	—
for Crispina	—	1
Clodius Albinus	—	1
Septimius Severus	2	1
Total	130	20

The Birnie hoards as early Severan deposits

In order to establish whether the Birnie hoards are similar to those deposited at around the same time within the province of Britannia, it will be necessary to examine the internal distribution of some early Severan hoards from England. Again there is a problem, since some of those which are most suitable for inclusion in this exercise were found during the nineteenth century and were not recorded to the highest standards. The following three hoards may, however, be worthy of study:

Great Melton, Norfolk (1984–96) (R 359, *CHRB* VI, VIII, IX, XI).⁶ This hoard comprises 278 denarii, the most recent being an issue of Clodius Albinus of AD 195.

(These figures include 268, corrected by Robertson from the 265 given in *CHRB* IX, plus ten new finds listed in *CHRB* XI.)

Silchester (Insula XI), Hampshire (c.1894) (R 362).⁷ Although 258 denarii have been recorded, there is evidence that the hoard originally contained many more coins, which were stolen before they could be recorded. The latest coin recorded is again of Albinus, of AD 194–5. Boon concludes that the theft 'is unlikely to have altered materially the general pattern of the hoard', but it is possible that the stolen coins might have included a higher proportion of those in the best state of preservation, i.e. the most recent issues.

⁶ Burnett 1986, 1988, 1992, Davies 2002.

⁷ Boon 1960.

TABLE 4. Contents of the Briglands, Rumbling Bridge hoard

Nero	2
Otho	1
Vitellius	2
Vespasian	6
for Titus	2
for Domitian	2
Titus	1
for Julia Titi	1
Domitian	7
Nerva	3
Trajan	25 (+ 1 probable)
Hadrian	21
for Sabina	1
Antoninus Pius	31
for Faustina I	12 (including 10 deified)
for Marcus Aurelius	6
for Faustina II	4
Marcus Aurelius	20
for Divus Antoninus Pius	1
for Faustina II	11 (including 2 deified)
for Lucilla	4
for Commodus	1
Lucius Verus	6 (1 deified)
Commodus	7
for Divus Marcus Aurelius	1
for Crispina	1
Total	180

Handley, Dorset (1877) (R 380).⁸ The hoard appears to have comprised 639 denarii, of which Robertson examined and listed 440. The latest coins are of Septimius Severus (AD 194–5) and of Julia Domna.

The contents of these three hoards are summarized in Table 5.

One clear difference between these three hoards and those from Birnie and other recorded hoards outwith the province is immediately apparent. Each of the English hoards contained a small, but significant, number of legionary denarii of Mark Antony. This feature and its possible significance will be discussed later. For further comparison it will be necessary to convert the number of coins from defined periods within each hoard to a per thousand figure. In order to compare like with like as far as possible, the Mark Antony coins have been omitted from this exercise, and the totals for the English hoards reduced accordingly. The Rumbling Bridge hoard is included here, in the hope of establishing whether or not it conforms to any pattern which might suggest that, although slightly earlier, it might belong to the same process of hoard deposition. The per thousand figures are shown in Table 6.

These figures are represented in graph form in Fig. 5, and some observations can now be made. All six hoards show a peak for coins struck during the reign of Vespasian, but this peak is significantly low for Rumbling Bridge and significantly high for Silchester. After the expected trough representing the reign of Domitian, all six hoards display a substantial rise for coins of Trajan. However, whereas figures are then lower for the reign of Hadrian in all three Scottish hoards, the reverse is the case for their English counterparts, strikingly so in the case of Silchester. Without exception the highest per thousand figure occurs for issues of the reign of Antoninus Pius, with fairly steep declines apparent through the reigns of Marcus Aurelius and Commodus to a small tail representing coins of AD 193–6.

⁸ Robertson 1950.

TABLE 5. Contents of the Great Melton, Silchester and Handley hoards

	<i>Great Melton</i>	<i>Silchester</i>	<i>Handley</i>
Mark Antony	11	9	14
Nero	3	4	2
Galba	1	1	2
Otho	1	—	2
Vitellius	1	4	3
Reign of Vespasian	32	46	43
Reign of Titus	6	6	9
Domitian	8	3	19
Nerva	5	—	15
Trajan	35	29	41
Hadrian	42	51	60
Reign of Antoninus Pius	66	56	108
Reign of Marcus Aurelius	51	33	81
Commodus	14	14	37
Didius Julianus	—	—	1
Clodius Albinus	1	1	—
Reign of Septimius Severus	—	1	2
Imitation (Hadrian)	1	—	1
Total	278	258	440

TABLE 6. Comparison of Birnie hoards with Rumbling Bridge and English hoards

<i>AD</i>	<i>54-69</i>	<i>69-79</i>	<i>79-96</i>	<i>96-117</i>	<i>117-38</i>	<i>138-61</i>	<i>161-80</i>	<i>180-92</i>	<i>193-96</i>
Birnie 1	28.8	118.2	35.1	159.7	150.2	194.1	185.3	105.4	22.4
Birnie 2	16.1	112.9	54.8	212.9	151.6	241.9	158.1	48.4	3.2
Rumbling Bridge	27.8	55.6	50.0	161.1	122.2	294.4	238.9	50.0	0.0
Great Melton	22.5	119.9	52.4	149.8	161.0	247.2	191.0	52.4	3.7
Silchester	36.1	184.7	36.1	116.5	204.8	224.9	132.5	56.2	8.0
Handley	21.1	103.3	65.7	131.5	143.2	251.2	190.1	86.9	7.0

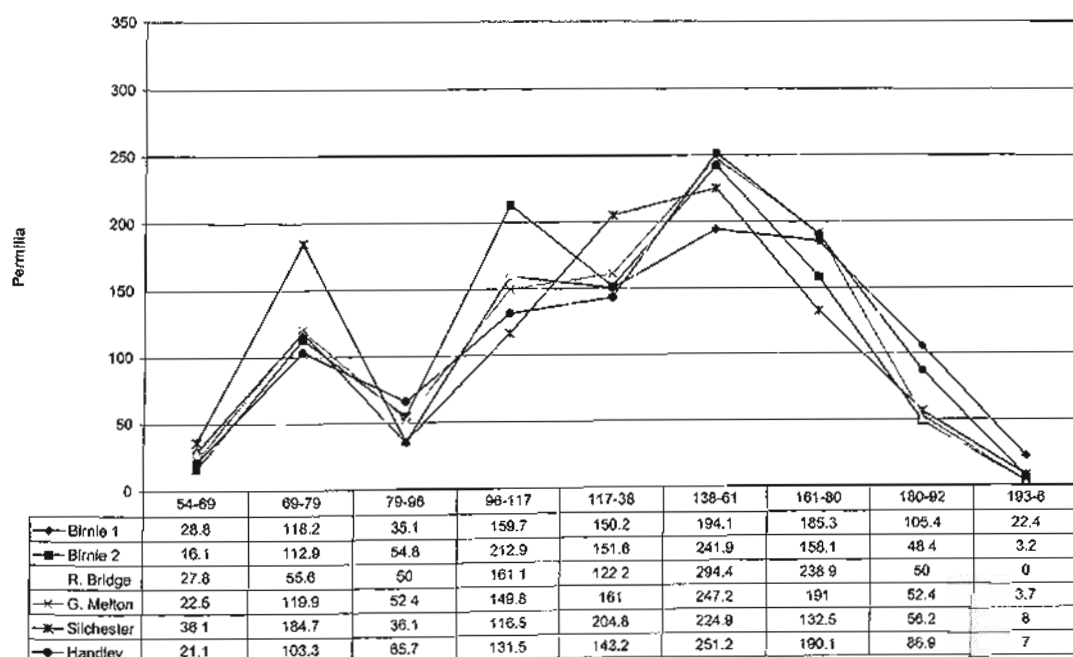


Fig. 5. Internal distribution of coins in Scottish and English hoards.

It is notable that the per thousand figures for Antoninus and Marcus are highest for Rumbling Bridge, this being entirely consistent with its apparently somewhat earlier date of closure and providing an argument against the suggestion that it might in fact have been a Severan hoard of which the latest coin(s) were not recovered. In fact, with over half its coins dating from the reigns of the two emperors immediately preceding Commodus, with whose issues it closes, and its significantly lower proportion of Vespasianic denarii, Rumbling Bridge displays a profile very much as one would expect to discover in a site assemblage from Commodan contexts. It is also worth noting that Birnie 2, which closes with a coin of Pertinax, has higher peaks for the reigns of Trajan and Antoninus Pius than does Birnie 1, which continues into the reign of Severus and has a comparatively high figure for the reign of Commodus.

It is also notable that Silchester has an unusually high figure for Hadrian and an unusually low figure for Marcus, which, along with the high figure for Vespasian, might perhaps support a theory that predominantly later and less worn coins were among those stolen before recording. It may therefore be unwise to place too much credence on this particular hoard as constituting a valid comparison with Birnie. By contrast, the patterns for Great Melton and Handley are generally very similar to those for Birnie 1 and 2, with the slightly curious exception of the comparative figures for the reigns of Trajan and Hadrian, for which there seems to be no obvious explanation.

It is dangerous to pay too much attention to individual figures, when so few hoards are available for comparison and when one unusual feature could thus alter the overall picture, but this exercise would seem to indicate a probability that the two Birnie hoards were assembled from a pool of coinage broadly similar in content to that from which Great Melton and Handley were drawn.

The coinage of the Severan campaigns

Evidence for the nature of the coinage in circulation among the soldiers of the Severan army in Scotland comes solely from the corpus of finds from the two military bases known to have been occupied at the time – at Cramond on the Forth and Carpow on the Tay. The present writer has analysed both groups of finds and published details and discussion in the respective excavation reports.⁹

To summarise the conclusions, the two assemblages suggest that a high proportion of the coins in use by the soldiers were denarii of Septimius Severus and his family, brought to Scotland in military pay-chests. To these can be added a range of earlier issues, from Vespasian onwards, which presumably arrived in the possession of individual military personnel. In addition, the dates of issue and unworn condition of most of the Severan denarii recovered strongly suggested that occupation of the two sites may have commenced anything up to a decade earlier than the generally accepted date of AD 208.

There is even a suggestion that Carpow, traditionally believed to be a Severan foundation, might have been built and occupied during the reign of Commodus, when some form of military activity in northern Britain is definitely attested, and if this was the case, postulation of a similar occupation at Cramond could provide a context for some of the late Antonine coins, as well as samian ware and coarse pottery, found on the site and more conventionally regarded as Severan losses.

All this can only be speculation so far, but the evidence clearly indicates that, whenever the two sites were under military occupation, the coins which must have been stored in the strong-rooms and used to pay the garrison can not have been the source of the denarius hoards found at Birnie or at other locations beyond the frontier, since the latter contained very little newly-minted coinage.

⁹ Holmes 1999, 2003.

Scottish post-Severan hoards: Falkirk and Edston

If the date of the commencement of the Severan military campaigns is open to discussion, there is little doubt that the army was withdrawn from Scotland very shortly after the death of the emperor in AD 211, leaving in place a system of outpost forts and cross-border patrols similar to that established under Marcus Aurelius. Within this context must be seen the two post-Severan denarius hoards so far known from Scotland (for locations see Fig. 4):

Falkirk, Stirlingshire (1933) (R 415).¹⁰ 1925 coins, closing with Severus Alexander (AD 230).

Edston, Peeblesshire (1994) (R -, *CHRB* X).¹¹ 290 coins, closing with Elagabalus (AD 218–22).

The Falkirk hoard has been analysed and discussed by numerous scholars owing to its unusual composition when compared to English hoards of the same period. The Edston hoard displayed a generally similar profile, and in the published report the present writer endorsed the hypothesis that both hoards could have comprised payments made to local chieftains at around the conclusion of the military campaigns, to which a small number of later coins were added as a result of further payments being made. These payments, it has been argued, could have been part of a 'buffer state' system, by which the Votadini of south-east Scotland were effectively employed by the Romans to provide advance warning of hostile action by the Maeatae.

It will be instructive to compare the internal distribution of the two post-Severan hoards with those of Birnie 1 and 2. Both the former contained Mark Antony legionary denarii (17 at Falkirk, as well as a Republican issue, and 13 at Edston), and these have been omitted from the totals used to calculate the per thousand figures. Also omitted are the post-196 coins from Falkirk and Edston, leaving totals of 1715 and 221 respectively. The proportions of coins from periods between AD 64 (the date of the earliest types of denarii of Nero represented) and the mid-190s are thus being compared in all four hoards.

The per thousand figures for Falkirk and Edston are shown in Table 7.

TABLE 7. Comparison of Falkirk and Edston hoards.

AD	64–69	69–79	79–96	96–117	117–38	138–61	161–80	180–92	193–6
Falkirk	36.7	224.5	64.7	135.3	152.2	225.7	106.1	28.0	26.8
Edston	58.8	298.6	54.3	95.0	113.1	221.7	67.9	63.3	27.1

These figures are represented alongside those for Birnie 1 and 2 in Fig. 6, and, although the patterns are broadly similar, the most obvious contrast is to be found in the exceptionally high per thousand figures for the reign of Vespasian in the two later hoards. This feature was highlighted in the Edston report, where it proved to be one of the aspects which distinguished the patterns of Falkirk and Edston from those of most of the English hoards of the early third century selected for comparison. In contrast, the two later hoards show considerably lower per thousand figures for the reigns of Trajan and Marcus Aurelius than do either of the Birnie hoards. It is worth recalling that the proportion of Vespasianic coins in the Commodan hoard from Rumbling Bridge was notably lower than in the early Severan hoards from both Birnie and England, and there seems to be an unexpected pattern emerging, in which the proportion of Vespasianic silver in Scottish hoards actually increases as time passes.

The wider picture: continental hoards from 'barbaricum'

The phenomenon of hoards of coins terminating with issues of the 190s AD has been observed in many parts of Europe outside the boundaries of the Roman Empire, and it will now be necessary to establish whether any of these geographical groupings constitute valid parallels for those so far discovered in Scotland.

¹⁰ Robertson 1982.

¹¹ Holmes and Hunter 1997.

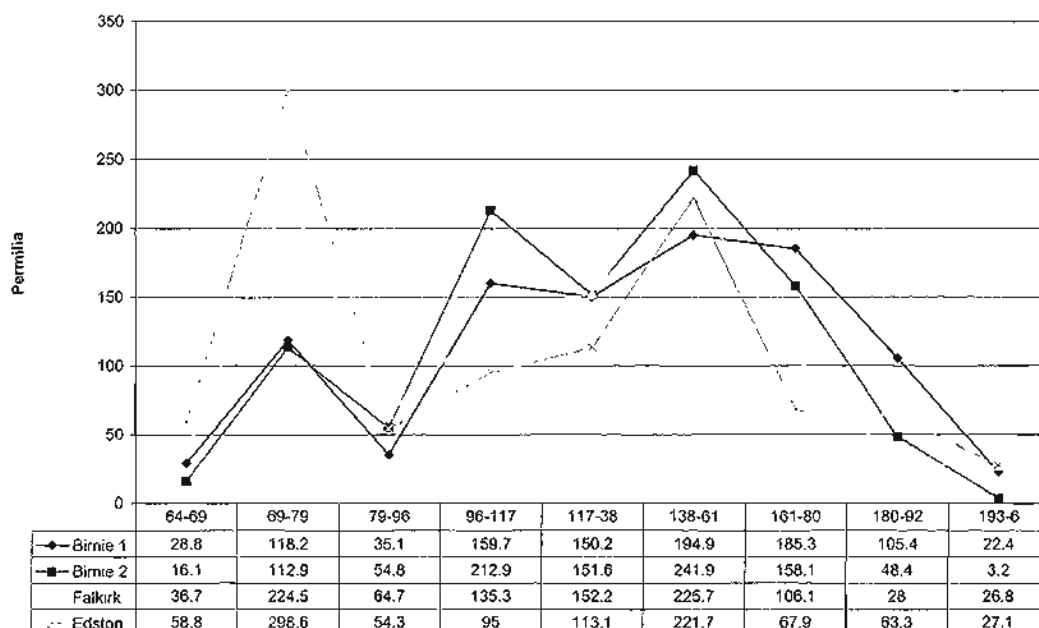


Fig. 6. Internal distribution of coins in Birnie, Falkirk and Edston hoards.

The closest finds to Scotland in geographical terms are those from the Scandinavian countries, but in terms of their profile and probable function these seem to provide the least satisfactory parallels. This is probably a consequence of the fact that this area lies at a considerable distance from the northern frontier of the Roman Empire on the Continent, with coins thus unlikely to have been transferred directly from sources within the Empire. Although most of the coins found in Denmark and Sweden are denarii from the period from Nero to early in the reign of Septimius Severus, the circumstances of their deposition are in most cases entirely different from those of the Scottish hoards. Some of the coins were found in association with deposits of weapons, e.g. at Nydam, Thorsbjerg and Illerup in Denmark and at Skedemosse in Sweden. These deposits can frequently be dated to a period much later than that of the minting of the latest coins, in the case of Nydam to the early fourth century.¹²

Other Danish finds are from occupation sites such as Lundeborg, a trading settlement where the coins were found scattered across the site in contexts dated to the third and fourth centuries. Although most of the denarii found in Denmark were minted between AD 69 and 192, evidence of burial prior to AD 200 is rare, and it seems probable that denarii continued to be available up to c.400. It has been suggested that they crossed the frontier of the Empire in the Danube area and reached Denmark via Hungary and Poland. Some may have been part of payments made by Commodus as a means of purchasing peace from Germanic tribes.¹³

The late dating of so many contexts in which coins have been found is reflected in the date of deposition of the Danish denarius hoards, the largest of which – each comprising some 500 coins – are those from Råmosen, Sealand, and Smørenggård, on the Baltic island of Bornholm. The Smøreng hoard contained a gold solidus of Anthemius (467–72).¹⁴ Even where no later material is present, the amount of wear displayed by the latest denarii in a hoard often indicates that they must have circulated for some considerable period prior to burial.¹⁵

¹² Horsnaes 2003a.

¹³ Horsnaes 2003a. 340.

¹⁴ Nielsen 1987–8, 155.

¹⁵ A recent example of this phenomenon may be found in the hoard of 66 denarii, closing with Septimius Severus, found at Orup (Horsnaes and Roland 2004).

What does seem clear from the contexts of the Danish finds is that denarii were regarded as high status objects, even if we have no idea how they may have been used, and there is a suggestion that a hierarchy of settlements may be discernible on the basis of the presence or absence of denarius finds.¹⁶

The situation in Sweden appears similar, in that over 7000 Roman coins have been recovered, mostly on the island of Gotland and all dating from between AD 54 and 250, with very few post-dating 200. The later denarii display a similar degree of wear to the earlier ones, suggesting that they circulated for many years before being deposited in hoards.¹⁷ Most of the Gotland hoards were found within houses and settlements and can be shown to have been buried several centuries after the date of the latest denarius. In at least eight cases solidi and denarii were found together in hoards.¹⁸

These Nordic finds, whilst resembling those from Scotland beyond the Antonine Wall in comprising almost exclusively denarii from the time of Nero to the early part of the reign of Septimius Severus, do not therefore provide a valid parallel. Whereas the coins in Scotland give every appearance of having been hoarded and buried within a short time of crossing the imperial frontier, and shortly after the issue of the latest types represented, those found in Denmark and Sweden may have taken some time to reach the area in the first place and then remained above ground, fulfilling an as yet poorly understood function, for many years thereafter.

More valid comparisons thus remain to be sought further to the south-east, in the large numbers of denarii found beyond the imperial frontier in Central Europe. Thirty-six hoards of denarii have been recorded from north-west Germany which terminate with coins of the second century, and in contrast to the Nordic finds, the degree of wear of the coins reflects their age, with the earliest being very worn and the latest displaying only slight wear. Most of these hoards commence with Flavian coins and terminate with issues dating from between the last years of the reign of Marcus Aurelius and the early part of that of Septimius Severus.¹⁹ This suggests that these coins crossed the imperial frontier during the period c. AD 168–95, and Frank Berger has associated this process with indications that during this period the Romans were paying subsidies to various tribes.²⁰ These payments seem to have been authorised by Marcus Aurelius and particularly by Commodus, whereas they were halted by Septimius Severus. Berger suggests that Severus's reasons may have been a combination of a decline in the bullion supply in the later second century and a change in imperial policy from one of appeasement of hostile peoples by monetary payments to one of active defence by military action, characterised by the raising of three new legions, the large increase in military wages and the distribution of *congiaria*. He notes the theory that Germanic tribes were able to distinguish between the debased denarii of the period after AD 194 and the purer earlier issues and that they deliberately rejected the former, but regards it as 'unconvincing'.

Evidence of coin supply and hoarding in areas further to the east has been collated and analysed by Aleksander Bursche.²¹ He notes 'a very considerable wave of currency' reaching the territory of the Wielbark and Przeworsk Cultures, in modern Poland, in the period up to AD 194, at which point it seems to have been abruptly halted. He discusses the possibility of the direct transfer of coins to areas far beyond the imperial frontier as part of a process of diplomacy to prevent hostile incursions, suggesting that the lack of historical evidence for this results from the inglorious nature of such a method of defence, leading to deliberate concealment of such activities. The payment of money as a ransom for captives is also noted as a possibility, as is remote trade, possibly involving amber.²²

On the subject of the apparent rapid decline in the transfer of denarii after AD 194, both in Poland and in all other areas beyond the frontier with the exception of buffer zones, Bursche, like

¹⁶ Horsnaes 2003b.

¹⁷ Lind 1988 (information taken from English abstract).

¹⁸ Berger 1996, 58.

¹⁹ Berger 1996, 57–8.

²⁰ Berger 1996, 59. See also Howgego 1992, 5.

²¹ Bursche 1996.

²² Bursche 1996, 120–3.

Berger, is suspicious of the idea that coins post-dating the debasement of that year were being deliberately rejected, citing the difficulty of distinguishing one issue from another and the 'universal nature of the phenomenon'. He prefers to seek an explanation in Roman imperial policy, and sees this as likely to have been economic rather than political.²³ A combination of a decline in the bullion supply, owing to lower output from mines and the export in previous decades of large quantities of silver coins, and the increase in military expenditure required by Severus, led to a rise in the value of silver and to the debasement of the denarius coinage. It thus became economically untenable for the payment of large numbers of denarii to tribes outwith the empire to continue.

It is thus possible to discern some valid parallels between the pattern of coin supply and hoarding beyond the imperial frontier in Germany and Poland at this period with what we know so far from the Scottish context. In both the continental regions cited, the hoards which have been recovered contain denarii ranging from Flavian to very early Severan, with the oldest displaying much greater wear than the most recent. The date of closure of the hoards varies from the reign of Marcus Aurelius to the mid 190s. The reason for the apparent sudden end to the supply of denarii under Severus has not been conclusively determined, but scholars prefer to attribute this to a change of policy emanating from Rome rather than to any preferences on the part of those who received the coins. It should be noted that Bursche makes the point that although the supply of denarii into Poland appears to have ceased after about 194, the supply of other Roman material, including sestertii and Samian pottery, did not. In Scotland there is still only a small body of third century Roman material from non-military contexts, but what there is does suggest a similar picture, albeit with a preponderance of glass rather than Samian,²⁴ and with an almost complete absence of early third century bronze coins.²⁵

Discussion

In considering what it may be possible to conclude about the Birnie hoards and the wider picture of denarius hoards in Britain beyond the imperial frontier, it is first necessary to remind ourselves of the incontrovertible facts, which are tantalisingly few. At Birnie we have two hoards of denarii from the context of a settlement site. One hoard was recovered complete and undisturbed, and the other, although damaged by the plough and partially spread, is without doubt substantially complete. Each had been buried in a pottery vessel of native manufacture, but one contained the remains of leatherwork considered to be of Roman workmanship, whilst the other contained two leather bags of non-Roman type. In each case the coin series commenced with Nero and ended in the mid-190s AD. There can be no doubt that the last owners of both hoards were native inhabitants of north-east Scotland, but beyond this all must be speculation, informed to a greater or lesser degree.

To return to the questions posed earlier, it is now necessary to determine whether there is anything which would permit any one hypothesis to be advanced in preference to others, as to how and why the coins reached Birnie, and when and why they were buried.

There is no doubt that parallels can be drawn between the Birnie hoards, and others of a similar nature from north of Hadrian's Wall, and those found in much greater numbers in Germany and Poland. There is evidence for attributing the presence of these continental hoards to a Roman policy of making payments to peoples beyond the frontier during the reigns of Marcus Aurelius and Commodus, and the very earliest years of Severus's reign, as a form of defence by diplomacy, or bribery, depending on one's point of view. The fact that there is a spread of hoards from the north of Britain concluding with denarii of this period would suggest that the same policy may have been followed here. Certainly it could be seen as an integral part of the frontier policy put in place after the abandonment of the Antonine Wall in the early to mid 160s. The picture is complicated, however, by the evidence of military activity in the area under Commodus in

²³ Bursche 1996, 123–5.

²⁴ Holmes and Hunter 2001, 174–5.

²⁵ Robertson 1983, Tables 3 and 4.

AD 183–4, about which very little is known. This brief period of conflict may have temporarily replaced the system of payments, or may have occurred in parallel with it, with some tribes being paid not to join in the fighting.

The hypothesis of payments of denarii to tribes beyond the frontier is not universally accepted, in the case of Britain at least. The most recent published discussion of the Scottish Severan hoards is that by Bland and Abdy,²⁶ who appear to be at best lukewarm about this theory, attributed to ‘current archaeological opinion’. An alternative theory of coins reaching areas beyond the frontier by means of trade has to be set against the extreme scarcity of stray finds of denarii compared to the number in hoards. Admittedly the entire body of evidence is still very small, but the picture at present is of the concentration of ownership of denarii in a few hands. There are also the questions of what the inhabitants of north-east Scotland might have had to trade which the Romans could not more easily acquire from elsewhere, and of why there is no hoard evidence of such trade across the frontier happening either before or after the late second–early third century period.

There is an almost complete lack of information about the context of any of the British hoards apart from those from Birnie. We do not know whether they came from sites which have evidence of settlement, since none of the findspots has been investigated. There have also been far too few excavations of Roman Iron Age settlements in the area to establish what proportion of them may have had hoards buried within their boundaries, and it is thus impossible to suggest whether or not there was a hierarchical structure of these settlements, as has been suggested in Denmark. However, the possibility should be borne in mind as and when further work can be carried out in the field.

Turning to the internal distribution of coins within the various British hoards from beyond the frontier, it has been demonstrated that the date range represented in all of them corresponds in general to those from Germany and Poland and also to contemporary hoards from the province of Britannia with which they have been compared. There are, however, some differences of detail. The continental hoards which close with coins of Septimius Severus have been said to support the theory that supplies of denarii dried up after about AD 194, but there is a coin of no earlier than 196 in Birnie 1, an issue of 196–7 from Portmoak and a denarius of 201 or later from Megray. These closing dates seem to render it rather less likely that any payment to British tribes beyond the frontier ceased abruptly as a result of an imperial edict shortly after Severus’s accession.

In the light of this, it is worth re-examining the hypothesis of a process of selection of acceptable coins by the recipients.²⁷ If coins of Severus were being deliberately filtered out, as far as was possible, this might also explain the almost total absence of legionary denarii of Mark Antony. The presence or absence of these coins is the most notable difference between the British early Severan hoards from inside and outside the province, with Great Melton, Silchester and Handley containing a total of thirty-four specimens, against just a single specimen (from Portmoak) from the Scottish hoards. This would certainly appear to constitute *prima facie* evidence that these coins were thought to be of debased silver and were therefore excluded from hoards. (The ancient rumour that coins of Mark Antony had been adulterated with iron was reported by Pliny (*NH* xxxiii, 132), but whether this assertion was known to late second-century Caledonians is of course impossible to determine.)

This consideration is important in any attempt to assess how denarii were viewed by those who owned them in areas far from the imperial frontier. Within the empire a denarius was a denarius and had a fixed value as an item of currency. If they were regarded as ‘money’ beyond the frontier, this perception would surely have been retained, and there need have been no preference for one issue over another. If their value was dictated by their precious metal content, however, the perceived purity of the silver in different issues would have been important to the recipients.

²⁶ Bland and Abdy 2002, 27–30.

²⁷ The following discussion concerning the concept of selection and the theory of different sources for the coins in different hoards has been written after stimulating discussions by email with Dr Richard Reece. Whilst his encouragement and ideas have been greatly welcomed by the present writer, Dr Reece is not to be held responsible for any of the text of this report or any errors of fact or logic which it may contain.

This leads to yet another 'unknown', for even if it were to be accepted that there was a process of selection involved in deciding which denarii were to be included in hoards, this is in itself of indeterminate significance unless we know why the hoards were formed and buried. In other words, if there was a process of selection, did this take place when coins were first paid over by the Romans to a native chieftain (if indeed this process occurred), or was there a later selection of coins from those which a person or community owned to be deposited in a buried hoard? If the coins were buried simply for safe keeping, this would have been unnecessary, but if there was a ritual or religious purpose behind the deposits, this could have been a possible motive for selection. If the coins were regarded solely as objects of precious metal and buried as a religious offering in the local tradition, those making the offering might have felt it necessary to exclude material known or thought to be debased. The use of a bracken lining to the pottery vessel of hoard 1 and of two locally-made leather containers in hoard 2 at Birnie might suggest a more than purely utilitarian nature to the deposits, since these items would not have been necessary if the coins were simply being stored. There is also some suggestion from the archaeology that the hoards might have been votive deposits: they were buried *outside* buildings, with their positions apparently marked by posts, and there were other possibly ritual deposits in pits in the same area, but at the time of writing this evidence is not conclusive.

This form of speculation might be regarded as pointless, as it represents an attempt to recreate how the people of a long-dead culture may have thought, but since any attempt at interpreting coin hoards inevitably comes up against the unpredictability of human behaviour, it is as well to set out and understand the problem, even if it is impossible to produce a definite solution. A reasonable objection to the theory of selection for hoarding from a larger pool of denarii available could be based on the absence from the finds record of the types of coins which might have been 'deselected'. Why are they not found as stray finds in the same area? Since very few stray finds of coins have been recovered from the area at all, we simply can not answer this, but if the coins had no value to their owners as currency, could they simply have melted them down and made them into other things? At present there is no evidence for such a practice at this time, with silver-working in crucibles not attested until the fourth century.

If the concept of selection is rejected (and it can be argued that the simple exclusion of particular issues thought to be debased, even if these could be accurately identified, could be self-defeating, since heavy coins of debased silver would have contained more precious metal than light-weight ones of higher purity), then the reason for the absence of Mark Antony denarii, in particular, from Scottish hoards of the late second century must be sought elsewhere. A possible explanation could be that the coins in these hoards came from a source different from those in hoards which do contain Mark Antony issues. It is notable that continental hoards found beyond the frontiers very rarely contain Mark Antony denarii either. Figures kindly provided to the writer by Dr Richard Reece reveal that only one of the 92 hoards from Poland and the former Soviet Union contains any at all, for instance. This might suggest that the coins found at Birnie and in the other Scottish hoards of the period had been exported directly from a pool on the continent, from which the hoards from Central Europe beyond the frontier also came, rather than from England, where coins of Mark Antony occur frequently in late second-century hoards. This raises the question of whether the legionary denarii may have been in circulation within the province of Britannia in the second century to a much greater extent than within the empire elsewhere. At present this is only a suggestion, and a great deal of work still needs to be done to establish whether it was indeed the case.

The next question to be considered concerns the relationship between the processes which led to the export of denarii beyond the frontier in Britain, and thus to the deposition of hoards, in the last decades of the second century, and the military campaigns of Severus's reign and the period immediately following them. As stated above, there is some evidence from the Carpow and Cramond coin finds that the campaigns commenced several years earlier than AD 208, when the emperor and his sons arrived in Britain, and it has also been demonstrated that the coins found on these two sites, representing those in use among the garrisons, came from an entirely different pool – military pay-chests – from those from which the early Severan hoards must have been drawn. Despite the presence of a single coin of AD 201+ in the Megray hoard, there is at present

nothing to contradict a hypothesis that payments ceased when war commenced, and this is surely what might be expected.

Finally there are the two Scottish hoards which post-date the death of Severus and the end of the military campaigns. As stated above, it has been argued that the hoards found at Falkirk and Edston comprised essentially groups of coins assembled at around the time of the end of Severus's Scottish campaigns and the reintroduction of a frontier system based on Hadrian's Wall, a number of outpost forts and a buffer state system. If this was indeed a return on the part of Caracalla to the policies favoured by Commodus, the profiles of the two hoards, as already discussed, indicate that a somewhat different mechanism was in operation to assemble them, even when the small numbers of post-211 coins are discounted. Both hoards contained Mark Antony legionary denarii, and both had remarkably high concentrations of Vespasianic issues, when compared both to the earlier Scottish hoards and to contemporary hoards from England.

It was suggested that most of the coins found at Falkirk and Edston may have come from a pool of coins in the north of England, where new issues of Severus and his family may have taken longer to enter circulation in substantial numbers.²⁸ If this were the case, it would lend support to the theory that Mark Antony legionary denarii were indeed still part of the circulating pool of coinage in England in the late second and early third centuries. The alternative scenario, in which most of the coins may already have been in Scotland before AD 200, having come from the same pool as the hoards of the 190s, but remained above ground for at least twenty or thirty years before being augmented with more recent issues and buried, seems less probable. Were this the case, it would need to be accepted that the post-Severan additions contained all the Mark Antony denarii, since these are not found earlier in Scottish non-military contexts. (Aside from the one example from the Portmoak hoard, the only other specimen recorded from a non-military site is one found at the hill-fort on Traprain Law, in East Lothian.²⁹) If, however, the exclusion of issues of Mark Antony from hoards buried in the 190s had resulted from a process of selection, it would be necessary to argue that this was no longer regarded as necessary or possible in the third century, and that the attitude of the native peoples to these denarii had changed as a result of the military campaigns.

The very high proportion of Vespasianic coins at Falkirk and Edston continues to pose a problem of interpretation. In the case of Falkirk, it has been suggested that this may have resulted from a wholesale clear-out of old coins from Roman banks when the Romans 'bought peace from the Maeatae' in around AD 200, as related by Cassius Dio.³⁰ Dio's statement does not seem to tie in with the archaeological and numismatic evidence from Carpow and Cramond anyway, since this may have been the time at which some military action commenced, but it would certainly seem remarkable if Severus had authorised so many good silver coins to be deliberately exported beyond the frontier at a time when a shortage of bullion had led to a debasement of the coinage, and when the process of cross-border payments had apparently been discontinued on his instructions several years earlier on the continent. Since their worn condition rules out any theory that the coins had been hoarded generations earlier, as was once suggested, another explanation must be sought for their presence in such numbers in third century hoards. (Again it is possible that the picture is being distorted as a result of selection of coins for inclusion in a buried deposit, but given the presence of Mark Antony denarii at Falkirk and Edston, this appears less probable than in the case of the earlier hoards.) On the surface it would tend to suggest that Caracalla's political priorities in extricating himself from military activity in Scotland after his father's death may have taken precedence over the economic consequences of handing over so much good silver in the form of bribes.

To summarise, in order to have any hope of understanding the role of the Birnie hoards and other contemporary deposits from Scotland it is necessary to examine their possible purpose from the point of view of both Roman suppliers and native recipients. Whilst it is relatively easy, given

²⁸ Holmes and Hunter 1997, 155.

²⁹ Robertson 1983, Table 3.

³⁰ Robertson 1982, 225.

what is known about Roman imperial policy and its consequences elsewhere beyond the frontiers, to advance a credible hypothesis as to why quantities of silver coins should have been supplied to the inhabitants of Britain north of Hadrian's Wall in the later second century AD, and even to suggest why these payments may have continued somewhat longer in Scotland than elsewhere, we have at present too little firm evidence about the nature of the value which the recipients may have attached to them. Whilst it is clear that the coins were not regarded as currency, we can not be certain whether the denarii were valued for their silver content or simply as high-status objects, and if the latter, how much their status was dependent on the former. This is clearly important when considering the question of whether particular types of coin might have been deliberately selected or rejected. Since there is evidence from north-east Scotland of other high-status Roman objects, particularly glass vessels,³¹ it could be argued that the presence of silver, and still less its purity, was not the prime factor in determining what was valued. Since the detailed study of the Scottish Roman Iron Age from a non-Roman viewpoint is effectively still in its infancy, it is to be hoped that further fieldwork of the type being undertaken at Birnie will eventually provide more answers.

APPENDIX 1: WEIGHTS

Almost all the coins were weighed both before and after cleaning, in an attempt to show how much weight is lost in the course of the removal of corrosion products. (Unfortunately a few of the loose finds were cleaned without being weighed first.) Despite the relatively high silver content of most of the denarii, the Birnie coins were mostly coated with a greenish deposit of copper corrosion, all of which was removed to permit detailed identification.

Of the 315 coins in Hoard 1, 311 were weighed – some in adhering groups of two or three coins initially – and the total weights before and after cleaning were 896.88 g and 878.28 g. The difference equates to approximately 2.1% of the pre-cleaning figure being lost. All the 310 coins in Hoard 2 were subjected to the same process, the totals being 1019.44 g and 987.65 g – a reduction of c.3.2%. Curiously, however, the loss equated to c.3.5% of the weight of the coins in Bag 1 and c.2.7% for Bag 2.

The notable variations between the figures for Hoards 1 and 2, both in total pre-cleaning weight and in percentage of weight removed during cleaning, may be a result of the spread nature of much of Hoard 1, with many individual coins separated from the mass contained within the pot and exposed both to more rapid corrosion and to abrasion in the ploughsoil. It was noticeable that the coins found during initial metal-detecting were more immediately identifiable than those contained within the core of the hoard, since movement in the soil had resulted in the removal of some of the copper-rich corrosion. A higher percentage of the impurities in the alloy of these coins may thus have been lost prior to recovery, leading to a lower initial weight, and this in turn would have left less of the impurities remaining in the form of copper salts to be removed from the surface. (It is true, of course, that Hoard 1 contained a higher proportion of the debased and frequently lighter, coins of Commodus, in addition to the small group of Severan issues, but this factor could not on its own account for a difference in pre-cleaning weight of over 120 g between almost identical numbers of coins in the two hoards).

The differences between the figures for the two bags within Hoard 2 are puzzling. Bag 1 contained ten more coins than Bag 2, so the fact that its contents were just over 40 g heavier before cleaning (530.26 g to 489.18 g) is not particularly surprising, but it is rather odd that so much more of the weight of the Bag 1 coins was lost during cleaning. It may be relevant that the per thousand figure for coins of Commodus in Bag 2 was 73.3, as against 31.3 for Commodus and Pertinax in Bag 1, suggesting that, as in the case of Hoard 1, more of the impure material in the debased coins had been lost before recovery, leaving less to be removed during cleaning.

It is notable that the two hoards contained similar, but not identical, numbers of coins (315 and 310), and that these figures were themselves not that far removed from the 290 recovered at Edston (which may not have constituted quite the entire hoard). It therefore seemed worth using the total weights of the Birnie hoards to test out a theory that denarii might have been supplied by the Romans in fixed measures of silver, rather than in simple numerical quantities, and that each hoard might comprise a single payment to one individual. One Roman pound equates to approximately 323.6 g and three Roman pounds therefore to c.970.8 g. The total weight of Birnie 1 at 896.88g before cleaning is thus significantly less, although a few coins from the spread part of the hoard may not have been recovered and, as has been suggested, corrosion may have decreased the overall weight substantially. Hoard 2, however, which was recovered intact, weighed 1019.44 g before cleaning, which would indicate some generosity on the part of the Romans if there had been an intention to hand over a recognisable weight of silver. There is thus no evidence at present to support such a theory, but it would be worth revisiting it in the event of further hoards of similar proportions coming to light in the future.

³¹ Holmes and Hunter 2001; Hunter forthcoming.

APPENDIX 2: EXAMINATION OF TWO COUNTERFEIT COINS FROM HOARD 1

by K. EREMIN AND J. TATE

Introduction

Two counterfeit coins from hoard 1 were examined to determine the materials and techniques used. One of these (catalogue 315) was extremely deteriorated and fragmentary. It can not be identified clearly, but may be a copy of a Flavian denarius (AD 69–96). The other (314) was in good condition, and is a counterfeit of a denarius of Domitian (AD 95–6). Five genuine Domitian denarii were also examined for comparison with the counterfeits.

Previous data

Analyses of 10 Flavian denarii (AD 76–8) by Butcher and Ponting indicated an average silver content of $78.7 \pm 3.3\%$ with $18.6 \pm 3.5\%$ copper.³² This contrasts with Walker, who obtained figures of $90.9 \pm 4.0\%$ silver and $89.8 \pm 4.0\%$ for denarii of AD 76 and AD 77–8 respectively.³³ These high levels are probably due to inclusion of some of the silver-enriched surface in Walker's analyses. Analyses of twenty Trajan denarii of AD 98–9 by Butcher and Ponting indicated an average silver content of $87.6 \pm 2.5\%$, compared to Walker who found just over 90% silver. No Domitian denarii were included in the coins analysed by Butcher and Ponting. Walker suggested a surface composition around 90% silver for Domitian denarii, but again this value is likely to be higher than the bulk composition due to surface enrichment.³⁴

Method

X-ray fluorescence analysis was undertaken on the surface of each coin using an Oxford Instruments ED2000 system with air path, and running the Oxford XpertEase software with the NMS 'Silver Alloys 2001' method. Following this, a sample of the deteriorated counterfeit coin (315) from Birnie was mounted and polished to provide a cross section. The other coin (314) was polished on the edge. Both coins were examined and analysed by scanning electron microscopy with energy dispersive microanalysis (SEM-EDX) using a CamScan MX2500 microscope with a Noran Vantage energy dispersive analyser and software.

Results

Fragmentary coin (315)

X-ray fluorescence indicated significant levels of silver, copper, lead and tin. The levels were extremely variable within and between fragments. It was noticeable that silver levels were much lower on the interior surface than on the exterior. This suggested the possibility of surface plating, and that a cross-section would be required to understand the structure and composition of the coin. SEM examination of the section revealed that the coin had a very thin outer layer of silver (approximately 15–20 microns) over a core with high levels of lead and tin and minor copper and silver (Figs 7 and 8). The core is highly altered and cut by veins of lead-rich corrosion products, which makes estimation of the original core composition difficult. Area analyses range from 54–65% tin, 15–38% lead with the majority of the remainder copper. The copper levels show considerable variation, from 'normal' values around 4–5% to around 9% near the centre of the coin. Some central areas appear to have significant silver (up to 5%) suggesting this may be part of the original core alloy.

The silver layer is extremely patchy and disrupted and is now absent from some surface areas. Lead-rich corrosion products overlie the foil in some places. Direct analysis of the silver layer gave 80% silver, 5% copper, 5% lead and 10% tin on one side and 81% silver, 3% copper, 7% lead and 9% tin on the other. Traces of mercury and gold may also be present but cannot be quantified. There is no evidence of the microstructure expected from mercury silvering and the silver layer resembles a thin foil, suggesting this is a cliché-type forgery. Some of the lead and tin in the surface layer are likely to be corrosion products from the core. The silver content around or above 80% is similar to the alloys in the genuine coins but the copper content is significantly lower, and the lead and tin higher,³⁵ presumably owing to corrosion. The disruption of the silver layer is attributed to volume expansion of the lead-tin core during corrosion.

Cliché-type forgeries consist of a thin foil of silver or copper alloy over a tin or lead-tin core.³⁶ Cliché-type forgeries of Roman, Anglo-Saxon and medieval series have been described.³⁷ Oddy and Archibald deduced that cliché-type counterfeits were made by placing a genuine silver coin between two sheets of silver foil, which were themselves placed between two sheets of soft lead. The sandwich was struck with a heavy hammer on an anvil so that the silver takes the impressions of the obverse and reverse and appears to have been struck with genuine dies, whilst the lead sheets have a reversed impression. The two silver sheets are then normally soldered together with a tin or lead-tin solder, which makes up the core. The silver foils were 0.05–0.13 mm thick and may have been derived from the official issues. The use of a whitish core is both cheaper and reduces the visual impact of partial loss of the silver foil. Three

³² Butcher and Ponting 1998.

³³ Walker 1976, 95–9, 111–21.

³⁴ It is believed that the silver content of Domitian's denarii may have been raised in AD 82, as suggested by Walker, but this awaits new analysis for confirmation.

³⁵ Butcher and Ponting 1998.

³⁶ Oddy and Archibald 1980.

³⁷ Cowell *et al.*, 2005; Oddy and Archibald 1980.

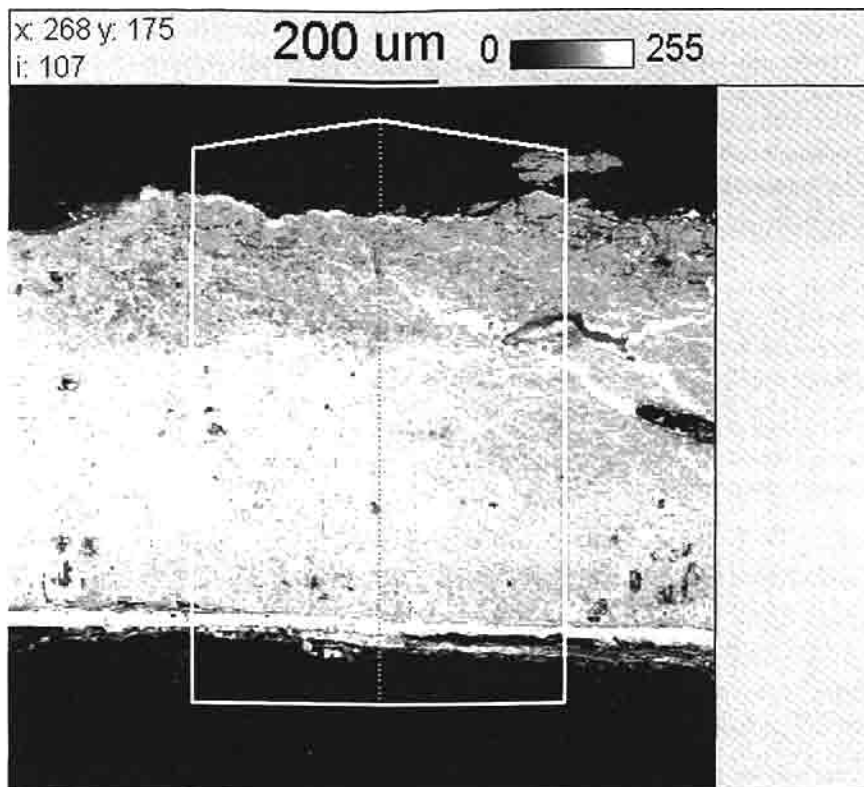


Fig. 7. Cliché-type forgery (hoard 1, coin 315): back-scattered electron image from the SEM (20kV, 20Pa controlled pressure) showing the thin layer of silver (bright) at the surface (bottom of image) of the lead and tin-rich core, and the network of lead-rich (white) veins throughout the core. The top of the image is where the coin has split apart, and is not an original surface.

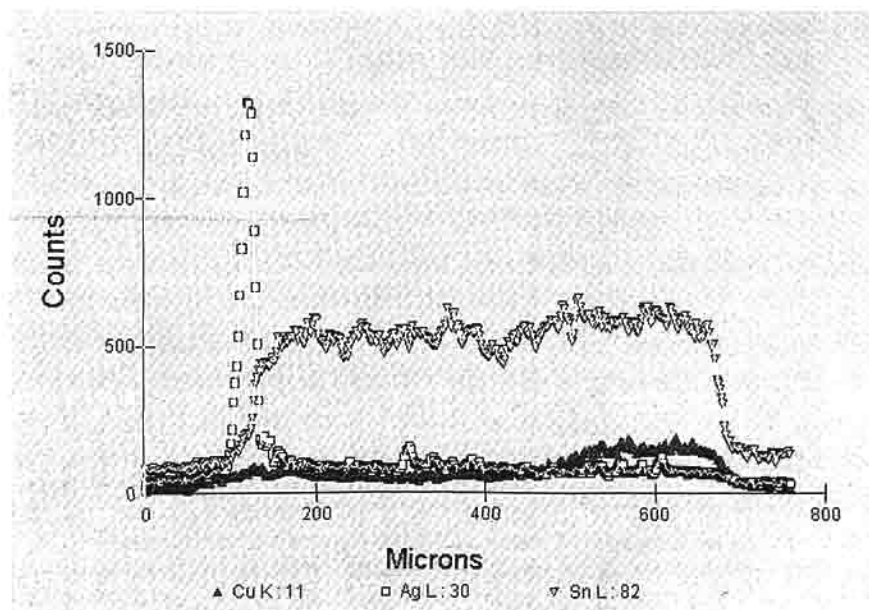


Fig. 8. Elemental profile for copper, silver and tin from SEM-EDX analysis of the section shown in Fig. 7. This shows the high surface silver (Ag) on one side and the increased tin (Sn) in the core, with relative increase of copper (Cu) towards the corroded centre of the coin (i.e. upper part of Fig. 7).

fragments of lead sheet with the reversed designs of official coins (two of Edward I pennies and one of a denarius of Titus) are thought to be waste materials from production of cliché-type forgeries. The authors comment that it is a simple technique and that it is surprising there are not more existent examples but note that they are likely to be 'decayed beyond recognition' in hoards, very reminiscent of the Birnie material.

Cowell *et al.* (2005) described cliché-type forgeries from the Roman coin hoard in the Hoxne Treasure. Two examples were examined in detail, revealing that the solder core was a tin-rich lead-tin alloy, whilst the silver foils were compositionally similar to the official coins. The silver used for the counterfeit in the Birnie hoard may also have been derived from official issues, but this cannot be determined definitively owing to the extreme corrosion. The Hoxne Roman coins date from the late fourth to early fifth centuries, but earlier Roman examples are mentioned by Oddy and Archibald. These are a sestertius of Severus Alexander (AD 222–35) from Gare, Cornwall and possibly a dupondius of Antonius Pius (AD 138–61) and a denarius of Gordian III (AD 238–44), both from Caerleon, Wales. The sestertius had a thin brass foil over a core with around 90% lead, 10% tin.

Cast forgery (314)

XRF analysis of the unprepared surface indicated this coin had a high level of silver (88%) with minor copper (9%). The surface composition was expected to be higher in silver than the bulk metal owing to surface enrichment from manufacture and/or burial. The composition did not, however, appear particularly anomalous compared to that of genuine coins from the same hoard. It was therefore necessary to examine the microstructure of the coin and the extent of surface enrichment. SEM examination of the polished edge indicated a cast structure with little evidence of striking (Fig. 9). This contrasts with the genuine issues which are struck (Fig. 10). As a result, the genuine issues have crisper inscriptions and details than the cast-in details on this copy (Fig. 11). The microstructure of the cast coin consists of a silver-rich phase surrounded by a eutectic mixture of a silver- and copper-rich phase. The overall composition is around 84% silver and 14% copper with traces of zinc and tin.

The composition of the Domitian denarii might be expected to be similar to those of the Flavian denarii of AD 76–8, issued under Vespasian, which had an average fineness of $78.7 \pm 3.3\%$,³⁸ suggesting a fineness similar to or lower than that of the cast copy. However, the official issues in the Birnie hoard analysed so far have silver values ranging from 86.5% to 91.2% from SEM-EDX analysis of polished edges. These are in fact closer to published values for Trajan denarii of AD 98–9 which had a fineness of $87.6 \pm 2.5\%$.³⁹

The amount of silver enrichment was estimated by comparing similar SEM-EDX analyses of the adjacent polished and unpolished edges of three coins, and found surface silver levels higher by 3–4%. These figures are only

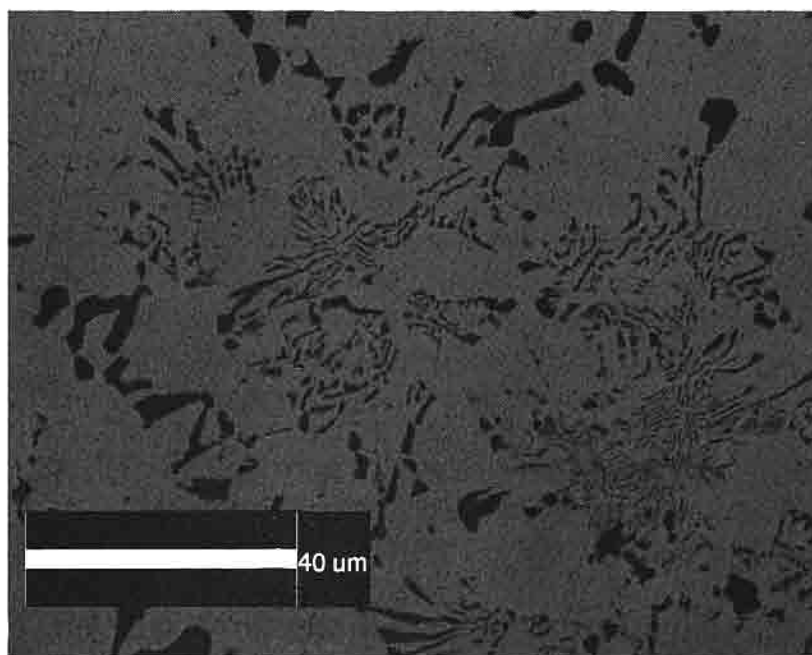


Fig. 9. Cast forgery (hoard 1, coin 314): back-scattered electron image from SEM showing the cast and unworked structure, with eutectic mixture of silver- and copper-rich (darker) phases between large grains of silver-rich phase.

³⁸ Butcher and Ponting 1998.

³⁹ Butcher and Ponting 1998. See also n. 34.

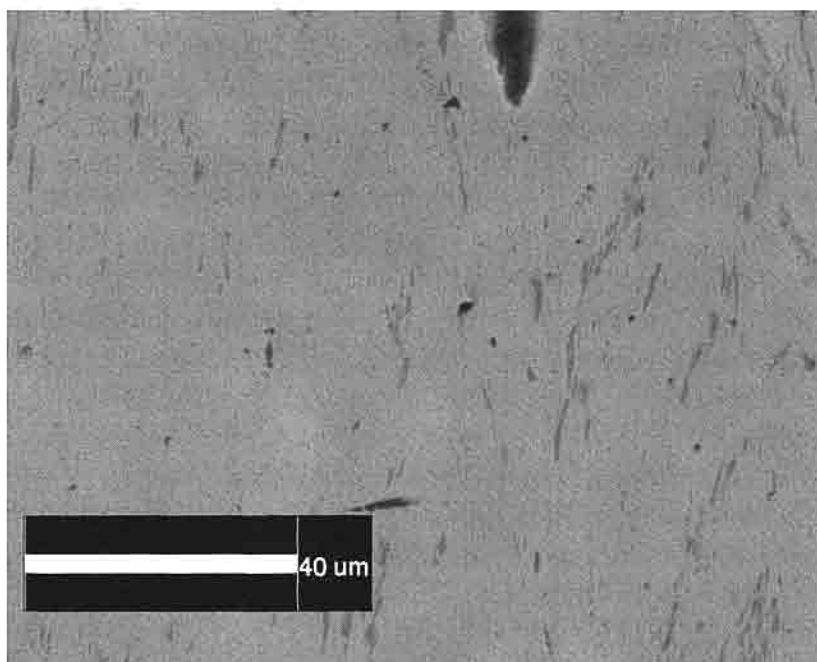


Fig. 10. Back-scattered electron image from SEM showing the struck appearance of a genuine coin with flattened copper-rich (darker) phases (Hoard 2, coin 52).

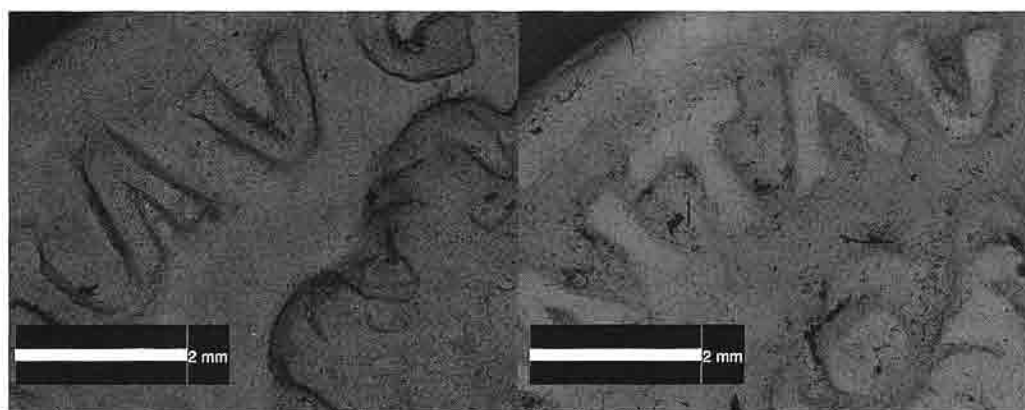


Fig. 11. Back-scattered electron images from SEM showing detail of lettering on (a) genuine denarius (hoard 1, coin 53), and (b) cast forgery (hoard 1, coin 314). Although the former is more worn, the lettering remains sharper than on the cast example.

approximate, since the uncleaned surface is not flat or regular. However, the estimated amount of silver enrichment compares well with the generally higher XRF surface analysis results, e.g. 88% silver for coin 314 compared with 84% by SEM-EDX for the polished edge. This confirms our expectations that the XRF surface analyses are likely to give silver levels which are at least 3–4% too high for these coins.

The Hoxne hoard also contained ‘copies’ of the siliquae which have the same overall composition as the official siliquae and are distinguishable only by stylistic differences.⁴⁰ It was suggested that the copies were manufactured from melted-down siliquae or clippings from these, as the hoard contains many clipped siliquae. All of these copies have a recognizable mint mark. Our data from the cast Domitian denarius and the genuine issues from the Birnie hoard suggest that the former may be a similar type of copy.

⁴⁰ Cowell *et al.* 2005.

Conclusions

Two different varieties of counterfeit have been identified in Birnie hoard 1: a cliché-type forgery of a Flavian denarius and a cast copy of a Domitian denarius. The composition of the latter suggests it may have been cast using scrap derived from genuine Domitian denarii. The detail in the cast copy is less crisp than in the genuine examples of the official issues. The cliché-type forgery is extremely deteriorated and has a thin silver layer over a lead-tin core. The silver layer may be derived from official issues but this cannot be confirmed because of the extreme corrosion. The disruption of the silver layer is attributed to volume expansion of the core during corrosion.

APPENDIX 3. CATALOGUE

Where variations from published descriptions involve design features, bust types and/or the wording of legends, these are explained in the footnotes. Many variations from *BMC* descriptions comprise only the spacing of lettering and/or the placing of stops between words, however, and to include details of these would have resulted in the creation of an unacceptable number of footnotes.

Weights of most of the coins are shown as recorded before and after cleaning. In some cases it was not possible to weigh coins individually before cleaning, as groups of two and sometimes three coins were found stuck together.

Coins marked with an asterisk (*) after the catalogue number are illustrated on **Plates 1 and 2**.

HOARD 1

NERO (2)

Obv.: NERO CAESAR AVGVSTVS

<i>No.</i>	<i>Reverse</i>	<i>Bust</i>	<i>BMC</i>	<i>RIC</i> ²	<i>Weight (g)</i>
1*	SALVS	A1*	90	60	3.13/3.09
2	IVPPITER CVSTOS	A1*	74	64	3.15/3.10

GALBA (6)

Obv.: IMP SER GALBA AVG

3	SPQR/OB/CS	A1+	35	167	3.04/3.03
4*	SPQR/OB/CS	A1+	35	167	3.03/3.00
5	SPQR/OB/CS	A1+	34	as 169 ⁴¹	3.12/3.11

Obv.: IMP SER GALBA CAESAR AVG

6	DIVA AVGVSTA	A1*	8	186	2.98/2.95
7	DIVA AVGVSTA	A1*	8 var.	186	3.32/3.30
8	DIVA AVGVSTA	C1*	6	189	3.28/3.24

VITELLIUS (1)

Obv.: A VITELLIVS GER[M IMP] AVG TR P

9*	PONT [MAXIM]	A1*	34	107	2.87/2.82
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VESPASIAN (25)

Obv.: IMP CAESAR VESPASIANVS AVG

10	COS ITER [TR POT] Aequitas	A1*	17	5	2.97/2.93
11	COS ITER TR POT Aequitas	A1*	17	5	2.82/2.83(!)
12	COS [ITER] TR POT Pax standing	A1*	as 21–22	9	2.95/2.92
13	[COS ITE]R TR POT Pax seated	A1*	as 26–30	10	– / 3.00

Obv.: IMP CAES VESP AVG P M

14	AVGVR / TRI POT	A1*	50	30	3.16/3.12
15	AVGVR / TRI POT	A1*	52	30	3.08/3.03
16	TRI POT	A1*	58	37	2.88/2.85
17	TRI POT [T II] COS III P P Pax	A1*	61	39	2.93/2.90

Obv.: [IMP C]AES VESP AVG P M C[OS IIII]

18	[T]RI POT	A1*	70	49	2.81/2.75
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Obv.: [IMP CAE]S VESP AVG P M COS IIII CEN

19	FIDES PVBL	A1*	86	55	– / 2.70
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Obv.: IMP CAES VESP AVG CENS

20	PON[TIF] MA[XIM] Vespasian	A1*	100	65	– / 2.86
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Obv.: IMP CAESAR VESP AVG

21	PONTIF MAXIM caduceus	A1*	146	84	3.03/2.99
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⁴¹ *RIC* lists only an aureus with uninterrupted obverse legend and bare head.

No.	Reverse	Bust	BMC	RIC	Weight (g)
<i>Obv.</i> : IMP CAESAR VESPASIANVS AVG					
22	CO[S VI(II)] Mars	A1*	as 200–201 ⁴²	86 or 103	– / 2.71
23	COS VI eagle	A1*	160*	89	– / 2.85
24	COS V[I(I)] EAGLE	A1*	160* or 180	89 or 99a	– / 2.97
25	[CO] S V[I(I)] eagle	A1*	160* or 180	89 or 99a	2.96/2.92
26	PON M[AX TJR] P COS VI Pax	A1*	162–164	90	– / 3.23
27	PON MAX [TR P COS] VI Pax	A1*	162–164	90	3.21/3.16
28	[P]ON MAX TR P COS VI Pax	A1*	162	90	3.16/3.07
29	[PON MAX TR] P COS VI Pax	A1*	162	90	3.00/2.92
30	PO[N MAX] TR P COS VI Pax	A1*	161	90	2.98/2.93
31	PON MAX TR P COS VI Victory on prow	A1*	166	93	3.02/2.98
32	COS VII(I) oxen	A1*	as 206 ⁴³	99A or 107	3.04/2.99
33	COS VIII oxen	A1*	206	107	3.14/3.10
<i>Obv.</i> : CAESAR VESPASIANVS AVG					
34	IMP XIX modius	A1*	216	110	2.97/2.93
<i>Obv.</i> : IMP CAESAR VESPASIANVS AVG					
35*	I[OV]IS [CVSTOS] ⁴⁴	A1*	277	124(a)	3.09/3.05

VESPASIAN FOR TITUS (7)

<i>Obv.</i> : [T CA]ESAR IMP VESP					
36	PONT[IF] TR PO[TI] caduceus	A1*	153*	178	2.97/2.93
<i>Obv.</i> : T CAESAR IMP VESPASIANVS					
37*	COS V[?] eagle, head to right	A1*	191 var. ⁴⁵	191A var. ⁴⁶	3.12/3.09
38	COS VI Mars	A1*	221	195	3.12/3.07
39	[C]OS VI oxen	A1*	225	197	– / 2.51
40	TR POT VIII COS VII trophy	A1*	258	208	2.96/2.92
<i>Obv.</i> : T CAESAR IMP VESPASIAN					
41	IOVIS CVSTOS	A1*	308 var.	211 var. ⁴⁷	– / 3.15

VESPASIAN FOR DOMITIAN (5)

<i>Obv.</i> : CAES AVG F DOMIT COS II					
42	no legend; Domitian riding	A1*	129–131 var.	232	2.99/2.92
<i>Obv.</i> : CAESAR AVG F DOMITIANVS					
43	[COS III] Pegasus	A1*	195	238	2.78/2.76
44	COS V wolf and twins	A1*	240	241	3.21/3.17
45	COS V wolf and twins	A1*	241	241	– / 2.75
46	COS V horseman	A1*	235	242	– / 3.23

TITUS (4)

<i>Obv.</i> : IMP TITVS CAES VESPASIAN AVG P M					
47	TR P IX IMP XV COS VIII P P trophy	A1*	37	21a	– / 3.20
48	TR P IX IMP XV COS VIII P P elephant	A1*	43	22a	3.35/3.32
49	[TR P IX] IMP XV COS VIII P P thunderbolt	A1*	52–54	23a	– / 2.99
50*	TR P IX IMP XV COS VIII P P dolphin	A1*	71	26a	3.01/2.96

TITUS FOR DOMITIAN (1)

<i>Obv.</i> : CAESAR AVG F DOMITIANVS COS VII					
51	PRINCEPS IVVENTVTIS clasped hands	A1*	85	45	3.23/3.18

JULIA TITI (1)

<i>Obv.</i> : IVLIA AVGVSTA TITI AVGVSTI F					
52*	VENVS AVGVST	E2*	141–143	56	– / 3.15

DOMITIAN (4)

<i>Obv.</i> : IMP CAES DOMIT AVG GERM P M TR P VIII					
53	IMP XVII COS [XIII] CE]NS P P P on prow	A1*	148	132	3.17/3.15
54	IMP XIX COS XIII CENS P P P on prow	A1*	152	138	– / 3.06

⁴² BMC lists this type for COS VIII only.⁴³ BMC lists this type for COS VIII only.⁴⁴ Circular 'banker's mark' on obverse, below chin.⁴⁵ BMC lists this type only with head of emperor to right and head of eagle to left.⁴⁶ RIC lists this type only with head of eagle to left.⁴⁷ BMC and RIC list this type only with obverse legend ending VESPASIANVS.

No.	Reverse	Bust	BMC	RIC	Weight (g)
<i>Obv.</i> : IMP CAES DOMIT AVG GERM P M TR P XIII					
55*	IMP XXII COS XVI CENS P P P on prow	A1*	217	176	– / 3.18
56	IMP XXII COS XVI CENS P P P with thunderbolt	A1*	218	177	3.28/3.23
NERVA (2)					
<i>Obv.</i> : IMP NERVA CAES AVG P M TR P COS II P P					
57*	CONCORDIA EXERCITVVM clasped hands	A1*	6	2	3.38/3.34
<i>Obv.</i> : IMP NERVA CAES AVG P M TR P II COS III P P					
58	AEQVITAS AVGVST	A1*	52	25	– / 3.10
TRAJAN (48)					
<i>Obv.</i> : IMP CAES NERVA TRAIAN AVG GERM					
59	P M TR [P CO]S II P P Felicitas or Pax	A1*	30* or 39	3 or 6	– / 3.07
60	PONT MAX TR POT COS II Abundantia or Iustitia	A1*	9	11	– / 2.87
61	PONT MAX TR POT COS II Pax standing	A1*	15	17	3.01/3.00
62	P M TR P COS III P P Concordia	A1*	65	33	3.20/3.12
63	P M TR P COS III P P Hercules	A3*	59	37	3.31/3.25
64	P M TR P COS III P P Hercules	A1*	88	49	3.14/3.08
65	[P M TR P] COS III P P Mars	A1*	94	52	3.00/2.96
66	P M TR P COS III P P Vesta	A1*	97*	53	– / 3.03
67	P M TR P COS III P P Victory facing	A1*	119(?)	58	3.13/3.07
68	P M TR P COS III P P Victory on prow	A3*	as 102–105	59	3.09/3.08
69	PM TR P COS III P P Victory walking left	A3*	123	60	2.99/2.92
<i>Obv.</i> : IMP TRAIANO AVG GER DAC P M TR P					
70	COS V P P S P Q R OPTIMO PRINC / DAC CAP Dacian seated r. on pile of arms	A3*	388	96	3.19/3.14
71	COS V P [P S P Q R OPTIM]O PRINC Roma stg.	A3*	271	115 var. ⁴⁸	2.85/2.80
72	COS V P P S P Q R OPTIMO PRINC Roma std.	A1*	276 var.	116 var. ⁴⁹	2.91/2.86
73	COS V P P S P Q R OPTIMO PRINC Aequitas stg.	A3*	281	118 var. ⁵⁰	3.40/3.36
74	COS V P P S P Q R OPTIMO PRINC Aequitas stg.	A3*	281	118 var.	3.29/3.24
75	COS V P P S P Q R OPTIMO PRINC Aequitas stg.	A3*(?)	281	118 var.	– / 3.09
76	COS V P P S P Q R OPTIMO PRINC Felicitas with column	A3*	305	120	3.06/3.01
77	COS V P P S P Q R OPTIMO PRINC Felicitas without column	A3*	301	121	3.23/3.18
78	COS V P P S P Q R OPTIMO PRINC Felicitas without column	A3*	301	121	3.00/2.94
79	COS V P P S P Q R OPTIMO PRINC Spes	A3*	319	127 var. ⁵¹	3.10/3.04
80	[COS V] P P S P Q R OPTIMO PRINC Victory I.	A3*	328	128	3.23/3.17
81	COS V P P S P Q R OPTIMO PRIN[C] Victory I.	A3*	328	128	2.80/2.75
82	COS V P P S P Q R OPTIMO PRINC Victory walking I. on shields	A3*	337	129 corr. ⁵²	3.55/3.45
83	COS V P P S P Q R OPTIMO PRINC Trophy with one round and one oval shield	A3*	368(?)	147 var. ⁵³	– / 2.87
<i>Obv.</i> : IMP TRAIANO AVG GER DAC P M TR P COS V P P					
84	S P Q R OPTIMO PRINCIPI Mars walking r.	A1*	157	156	3.01/2.97
85	S P Q R OPTIMO PRINCIPI Felicitas	A3*	196–197	174	3.08/3.03
86	S P Q R OPTIMO PRINCIPI Fortuna	C2*	203–204 var.	178 var. ⁵⁴	3.01/2.98
87	S P Q R OPTIMO [PRINCIPI] Dacia without trophy	A3*(?) ⁵⁵	179 or 181	216 or 218	3.20/3.15
<i>Obv.</i> : IMP TRAIANO AVG GER DAC P M TR P COS VI P P					
88	S P Q R OPTIMO PRINCIPI / ALIM ITAL	A3*	469	243	– / 3.23
89	S P Q R OPTIMO PRINCIPI / ARAB ADQ	A2*	477	245	3.09/3.03
90	S P Q R OPTIMO PRINCIPI Mars	C2*	418	269	3.39/3.34
91	S P Q R OPTIMO PRINCIPI Mars	C2*	418	269	3.33/3.27

⁴⁸ Cf. *RIC* 115, but drapery on left shoulder only.⁴⁹ Cf. *BMC* 276, *RIC* 116, but no drapery on bust.⁵⁰ Cf. *RIC* 118 (aureus only, but drapery on left shoulder only; see also 74–75).⁵¹ Cf. *RIC* 127, but drapery on left shoulder only.⁵² Victory walking, not standing.⁵³ Cf. *RIC* 147, but drapery on left shoulder.⁵⁴ Cf. *BMC* 203–204, *RIC* 178, but draped bust.⁵⁵ Bust may have aegis as well as drapery.

No.	Reverse	Bust	BMC	RIC	Weight (g)
92	S P Q R OPTIMO P[INCIPI] Felicitas, no altar	C2*	424	271	- / 2.79
93	S P Q R OPTIMO PRINCIPI Trajan riding l.	A3*	445-446	291 var. ⁵⁶	3.03/2.97
94	S P Q R [OPT]IMO PRINCIPI Trajan's Column	C2*	455	292	3.21/3.14
95	S P Q R OPTIMO PRINCIPI Trajan's Column	C2*	452	292	2.94/2.90
<i>Obv.: IMP CAES NER TRAIAN OPTIM AVG GERM DAC</i>					
96	PARTHICO P M TR P COS VI P P S P Q R Mars	C2*	617	331	3.14/3.09
97	[PARTHICO] P M TR P COS VI P P S P Q R Virtus	C2*	631	334	- / 2.97
<i>Obv.: IMP CAES NER TRAIANO OPTIMO AVG GER DAC</i>					
98	P M TR P COS VI P P S P Q R Mars	C2*	536	337	3.40/3.31
99	P M TR P COS VI P P S P Q R Mars	C2*	536	337	- / 2.51
100	P M TR P COS VI P P S P Q R Felicitas	C2*	542	343	3.13/3.08
101	P M TR P COS VI P P S P Q R Felicitas	C2*	541	343	3.02/2.98
102*	P M TR P COS [VI P] P S P Q R Felicitas	A3* ⁵⁷	542 var.	343 var.	2.84/2.79
103	P M TR P COS VI P P S P Q R Genius	C2*	549	347	3.34/3.28
<i>Obv.: IMP CAES NER TRAIAN OPTIM AVG GER DAC PARTHICO</i>					
104	P M TR P COS VI P P [S P Q R] Virtus	C2*	563	353	3.34/3.25
105	P M TR P COS VI P P S P Q R Virtus	C2*	563	353	3.26/3.20

*Drachm of Lycia in genere**Obv.: AYT KAIS NER TRAIANOΣ ΣΕΒ ΓΕΡΜ*

106*	ΔΗΜΕ[Ξ] ΥΠΑΤΩ two lyres and owl	A1*	Lycia in genere 9-11	2.60/2.53
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HADRIAN (41)

Obv.: IMP CAESAR TRAIAN HADRIANVS AVG

107	P M TR P C[OS (DES) II] / IVSTITIA	A3*	39 or 74	19(a) or 42(a)	- / 3.20
108	P M TR P COS II / FEL AVG	A3*	66-67	40(a)	2.62/2.56
109	P M TR P COS III Mars walking r.	A3*	113	67(b)	- / 3.12
110	P M TR P COS III Roma std., with shield	C1*	141-142 var.	77(c)	3.10/3.04
111	P M TR P COS III Roma std., no shield	C1*	144-145 var.	78(c)	- / 3.25
112	P M TR P COS III Aequitas, with scales	A2*	154	80(b)	3.20/3.14
113	P M TR P COS III Concordia ⁵⁸	A2*	166	82(b)	3.37/3.32
114	P M TR P COS III Pax stg.	A2*	194	94(b)	- / 3.19
115	P M TR P COS III / AETER AVG	A2*	250 var.	115(b)	- / 3.04
116*	P M TR P COS III / CONCORD	A2*	258-259 var.	118(b) var. ⁵⁹	3.05/2.96
117	P M TR P COS III / FEL P R	A2*	264	120 var. ⁶⁰	2.91/2.87
118	P M TR P COS III / PRO AVG no column	C1*(?)	304 var.	133(c)	2.75/2.73
119	P M TR P COS III / SAL AVG	A2*	315 var.	137(b)	3.09/3.03
120	P M TR P COS III / SAL AVG	C1*	316-317 var.	137(c) var. ⁶¹	- / 3.33
121	[P] M TR P [COS II(l)] fig. std. l. (?)	D1*	?	?	3.26 / not cleaned

Obv.: HADRIANVS AVGVSTVS

122	COS III Roma stg. r.	A2*	356	160(d)	3.09/3.04
123	COS III Roma stg. l.	A1*	366	161(c)	3.11/3.07
124	COS III Roma std. r., no globe	A2*	367	162(d)	3.04/2.96
125	COS III Roma std. l., branch and sceptre	A2*	374	165(d) corr. ⁶²	3.37/3.32
126	COS III Libertas	A2*	402	175(d)	3.21/3.12
127	COS III Victory stg.	A2*	422	182(d)	3.14/3.10
128	COS III Victory std. l., no globe	A2*	426	183(d)	3.08/3.03
129	COS III star and crescent, with globe	A2*	462	201 var. ⁶³	3.08/2.96
130	COS III crescent and seven stars	A1*	463 corr. ⁶⁴	202(c)	3.19/3.15
131	PIETATI AVG COS III P P	C2*	563 var.	219 var. ⁶⁵	3.20/3.16
132	TRANQVILLITAS AVG COS III P P	A3+	573	222 var. ⁶⁶	2.99/2.91

⁵⁶ Cf. RIC 291, but drapery on left shoulder only.⁵⁷ Bust appears to have aegis as well as drapery on shoulders. Neither BMC nor RIC lists this bust with this reverse.⁵⁸ Left arm of Concordia rests on statue of Spes; this is not noted in RIC or BMC description.⁵⁹ No cornucopiae below seat.⁶⁰ Cf. RIC 120, but drapery on left shoulder only.⁶¹ Cf. RIC 137(c), but bust draped, not cuirassed.⁶² Roma's left arm rests on shield.⁶³ Cf. RIC 201, but drapery on left shoulder.⁶⁴ Bust a, as shown at Plate 55, 16.⁶⁵ Cf. BMC 563, RIC 219, but draped bust.⁶⁶ Cf. RIC 222, but drapery on left shoulder.

No.	Reverse	Bust	BMC	RIC	Weight (g)
<i>Obv.: HADRIANVS AVG COS III P P</i>					
133	FELICITAS AVG Felicitas stg., with branch	A1+	606	234(a)	3.43/3.38
134	FELICITAS AVG Felicitas and Hadrian	A1*	616	237(d)	— / 2.86
135	FIDES PVBLICA	A1*	630	241A(d)	3.14/3.08
136	FORTVNAE REDVCI Fortuna std.	A1*	645	247(d)	2.94/2.89
137	MONETA AVG	A1+	679	256(a)	3.06/3.02
138	ROMA FELIX	A1*	704–706 var.	264(d)	3.43/3.38
139	SALVS AVG Salus stg. r.	A1+	715	267(a)	3.05/3.00
140	VICTO[RI]A AVG Victory std. l.	A3*	772 var.	286 var. ⁶⁷	3.16/3.11
141	HISPANIA rabbit behind	A1*	849	306(d)	3.20/3.16
142	NILVS Nilus reclining r., with hippopotamus	A1+	857	310(a)	— / 3.52
143	NILVS as 142	A1*	862	310(d)	— / 3.26
144	RESTITVTORI GALLIAE Hadrian stg. r.	A1+	877 var.	324(a)	3.33/3.27
<i>Obv.: HADRIANVS AVGVSTVS P P</i>					
145	COS III Roma std. r.	A1*	476	332	3.36/3.31
146	COS III Aequitas	A1*	483	339(c)	3.27/3.19

*Drachm of Amisus, Pontus**Obv.: ΑΥΤ ΚΑΙ ΤΡΑ ΑΔΡΙΑΝΟΣ ΣΕΒ Π Π ΥΠΓ*

147*	ΑΜΙΣΟΥ ΕΛΕΥΘΕΡΑΣ ΕΤΟΥΣ ΡΞΙ Pallas	A1*	Pontus 86–88 var.		2.91/2.86
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SABINA (5)*Obv.: SABINA AVGVSTA*

148	CONCORDIA AVG Concordia stg.	E2*	930	390 (bust r.)	3.49/3.43
149	IVNONI REGINAE no peacock	E2*	940	395(a)	— / 2.84
<i>Obv.: SABINA AVGVSTA HADRIANI AVG P P</i>					
150	CONCORDIA AVG Concordia std. l., with patera	E2*	897	398 (bust r.)	3.23/3.16
151	CONCORDIA AVG as 150	E2*	897	398 (bust r.)	3.02/2.96
152	CONCORDIA AVG as 150, with patera and sceptre	E2*	905	399(a)	— / 3.13

HADRIAN FOR ANTONINUS PIUS (1)*Obv.: IMP T AEL CAES ANTONINVS*

153	TRIB POT COS Pietas	A1+	1013	452(a)	2.72/2.71
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ANTONINUS PIUS (28)*Obv.: IMP T AEL CAES HADRI ANTONINVS*

154	AVG PIVS P M [TR P COS D]ES II Aequitas	A1+	as 15–16	10(a)	2.57/2.51
155	AVG PIVS P M TR P COS DES II Felicitas	A1+	17–20 var.	11(a)	3.09/3.04
156	AVG PIVS P M TR P COS DES II Fides	A1+	24	12(a)	2.89/2.83

Obv.: ANTONINVS AVG PIVS P P

157	TR POT COS II knife, sprinkler, ewer, lituus and simpulum	A1+	118	56(a)	3.20/3.14
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Obv.: ANTONINVS AVG PIVS P P TR P COS III

158	AEQVITAS AVG	A1*	176	61(c)	3.27/3.20
159	CLEMENTIA AVG	A1*	194–195 var.	64(c)	3.47/3.41

Obv.: ANTONINVS AVG PIVS P P COS III

160*	IMPERATOR II Victory stg. l.	A1*	500	111(e) var. ⁶⁸	— / 3.15
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Obv.: ANTONINVS AVG PIVS P P TR P COS III

161	IMPERATOR II caduceus	A1*	502	112	3.03/2.94
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Obv.: ANTONINVS AVG PIVS P P

162	COS [IIII] clasped hands	A1*	as 530–535	136	— / 3.34
163	COS IIII thunderbolt on throne	A1*	536	137	3.20/3.16
164	TR POT COS IIII Virtus or Roma	A1*	563	154	3.37/3.29

Obv.: ANTONINVS AVG PIVS P P TR P XI

165*	PRIMI / DECEN / COS IIII	A1*	632	171(a)	3.37/3.33
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Obv.: ANTONINVS AVG PIVS P P TR P XII

166	COS IIII Annona, without ship	A1*	659	175	— / 3.47
167	COS IIII Salus	A1*	670	181	3.26/3.22
168	COS IIII Salus	A1*	670	181	3.23/3.20

⁶⁷ Cf. BMC 772. RIC 286, but drapery on left shoulder.⁶⁸ Cf. RIC 111(e), but undraped bust.

No.	Reverse	Bust	BMC	RIC	Weight (g)
<i>Obv.</i> : ANTONINVS AVG PIVS P P TR P XV					
169	COS IIII Vesta	A1*	as 762–764	203	3.23/3.18
170	COS IIII Annona	A1*	766	204	3.00/2.97
<i>Obv.</i> : ANTONINVS AVG PIVS PP TR P XV(I)					
171	COS IIII Annona	A1*	765–766 or 786–788 var.	204 or 221	3.69/3.63
<i>Obv.</i> : IMP CAES T AEL HADR ANTONINVS AVG PIVS P P					
172	TR POT XV COS IIII / PAX	A1*	746	216a(a)	3.38/3.31
173	TR POT XV COS IIII / TRANQ	A1*	758	218	– / 3.06
<i>Obv.</i> : ANTONINVS AVG PIVS P P TR P XVI					
174	COS IIII Annona	A1*	787	221	3.10/3.07
175	COS IIII Annona	A1*	787	221	3.10/3.03
<i>Obv.</i> : ANTONINVS [AVG P]VS P P TR P XVIII					
176	COS IIII Vesta	A1*	829	238	3.54/3.50
<i>Obv.</i> : ANTONINVS AVG PIVS P P IMP II					
177	TR POT XIX COS IIII Annona stg.	A1*	849	249	3.55/3.51
178	TR POT XX COS IIII Salus	A1*	882	264	3.02/2.85
<i>Obv.</i> : ANTONINVS AVG PIVS P P TR P XXI					
179	TEMPLVM DIV AVG REST / COS IIII	A1*	916	272(a)	3.18/3.13
<i>Obv.</i> : ANTONINVS AVG PIVS P P TR P XXIII					
180	PACI AVG COS IIII	A1*	981	301	3.25/3.21
181	ROMA COS IIII	A1*	985	303	3.45/3.40

FAUSTINA I (2)

<i>Obv.</i> : FAVSTINA AVG ANTONINI AVG P P					
182	CONCORDIA AVG Concordia std. I., cornucopiae below chair	E1*	40	328(a)	3.08/3.03
<i>Obv.</i> : FAVSTINA AVGVSTA					
183	IVNONI REGINAE Juno	E1*	136	338	3.05/3.00

DIVA FAUSTINA I (17)

<i>Obv.</i> : [DI]VA AVG FAVSTINA					
184	AETERNITAS Venus	E1*	280	346(b)	3.35/3.31
<i>Obv.</i> : DIVA FAVSTINA					
185	AETERNITAS Fortuna, with globe and rudder	E1*	361	348(a)	3.69/3.64
186	AETERNITAS as 185	E1*	362	348(a)	– / 3.02
187	AETERNITAS Providentia, with blown veil	E1*	375	351(a)	3.45/3.39
188	AETERNITAS as 187	E1*	373	351(a)	3.08/2.99
189	AETERNITAS as 187	E1*	375	351(a)	– / 2.92
190	AVGVSTA Ceres, with torch and sceptre	E1*	399 var.	356(a)	3.63/3.57
191	AVGVSTA Ceres stg. I., with corn-ears and torch	E1*	409	360(a)	2.86/2.79
192	AVGVSTA as 191	E1*	409	360(a)	2.83/2.78
193	AVGVSTA Ceres, holding torch and fold of robe	E1*	422	362	3.66/3.59
194	AVGVSTA as 193	E1*	427	362	3.24/3.21
195	AVGVSTA Vesta std.	E1*	443	371	3.23/3.17
196	CERES Ceres stg.	E1*	462	378(a)	3.37/3.31
197	CERES as 196	E1*	462	378(a)	3.05/3.00
198	CONSECRATIO peacock walking r.	E1*	474–475 var.	384(a)	– / 3.39
199	CONSECRATIO as 198	E1*	474–475 var.	384(a)	– / 3.16
<i>Obv.</i> : DIVA AVG FAVSTINA					
200	PIETAS AVG Pietas stg. I. by altar, holding box	E1*	311–314 var.	394a	3.40/3.36

ANTONINUS PIUS FOR MARCUS AURELIUS (10)

<i>Obv.</i> : AVRELIVS CAESAR AVG PII F COS					
201	IVVENTAS	A1+	271	423(a)	3.40/3.37
202	PIETAS AVG	A1+	277–279 var.	424(a)	3.45/3.39
203	PIETAS AVG	A1+	277	424(a)	2.80/2.75
<i>Obv.</i> : AVRELIVS CAESAR AVG PII F					
204	TR POT III COS II Providentia	A1+	699	446	– / 3.14
<i>Obv.</i> : AVRELIVS CAESAR AVGG PII FIL					
205	TR POT VIII COS II Minerva	A1+	837	463(a)	2.91/2.82

No.	Reverse	Bust	BMC	RIC	Weight (g)
<i>Obv.</i> : AVRELIVS CAES ANTON AVG PII F					
206	TR POT XI COS II Virtus(?)	A1+	893	473	3.51/3.46
207	TR POT XI COS II as 206	A1+	893	473	3.03/2.96
208	TR POT XII COS II Felicitas	A1+	920	475(a)	2.96/2.91
209	TR POT XII COS II Spes	A1+	922	476	— / 3.21
<i>Obv.</i> : AVRELIVS CAESAR AVG PII F					
210	TR POT XV COS III Mars(?)	A1+	1018	489	3.21/3.15

ANTONINUS PIUS FOR FAUSTINA II (4)

<i>Obv.</i> : FAVSTINA AVGVSTA					
211	AVGVSTI PII FIL Spes	E1*	1106	497	3.50/3.47
<i>Obv.</i> : FAVSTINA AVG PII AVG FIL					
212	CONCORDIA Concordia std.	E1*	1086	502(a)	3.26/3.21
<i>Obv.</i> : FAVSTINAE AVG PII AVG FIL					
213*	CONCORDIA as 212	E1*	1086 var.	502 var. ⁶⁹	2.96/2.92
214	LAETITIAE PVBLICAE	E1*	1049	506(b)	3.35/3.31
			with pearl band		

MARCUS AURELIUS (25)

<i>Obv.</i> : IMP M AVREL ANTONINVS AVG					
215	PROV DEOR TR P XV COS III Providentia stg.	A1*	18	23	3.40/3.35
216	CONCORD AVG TR P XVI / COS III cornucopiae under seat	A1+	177	35	3.21/3.12
217	PROV DEOR TR P XVI COS III	A1*	191	51	3.37/3.29
<i>Obv.</i> : IMP M ANTONINVS AVG					
218	CONCORD AVG TR P XVII / COS III cornucopiae under seat	A1+	209	59	— / 3.01
<i>Obv.</i> : M ANTONINVS AVG IMP II					
219	CONCORD AVG TR P XVII / COS III as 218	A1+	216	62	— / 3.34
<i>Obv.</i> : ANTONINVS AVG ARMENIACVS					
220	P M TR P XVIII IMP II COS III / ARMEN	A1*	274	81	3.17/3.12
221	P M TR P XVIII IMP II COS III Mars	A1+	261	91	3.47/3.41
222	P M TR P XVIII IMP II COS III Mars	A1+	261	91	3.32/3.27
223	P M TR P XIX IMP II COS III Mars	A1+	357	123	— / 3.37
224	P M TR P XIX IMP II COS III Annona	A1*	359	125	— / 2.98
<i>Obv.</i> : M ANTONINVS AVG ARM PARTH MAX					
225	TR P XX IMP III COS III Pax	A1*	401	164	3.55/3.50
226	TR P XX IMP III COS III Pax	A1*	402	164	3.10/3.04
227	TR P XXII IMP III COS III Aequitas	A1*	454	178	3.40/3.35
228	TR P XXII IMP V COS III Providentia	A1*	470 var.	186	3.02/2.97
229	TR P XXII IMP V COS III Aequitas std.	A1*	467	191	3.41/3.36
<i>Obv.</i> : M ANTONINVS AVG TR P XXIII					
230	COS III Diana	A1*	507	212	2.81/2.76
231	COS III Salus	A1*	514	216	3.38/3.22
232	COS III Salus	A1*	514	216	3.23/3.17
233	VICT AVG COS III Victory with wreath and trophy	A1*	532	225	2.85/2.81
<i>Obv.</i> : IMP M ANTONINVS AVG TR P XXV					
234	COS III Mars	A1*	535 var.	231 var. ⁷⁰	3.13/3.08
235	IMP VI COS III Victory seated	A1*	543	239	3.37/3.32
<i>Obv.</i> : M ANTONINVS AVG TR [P XXV(II)]					
236	IMP VI COS III Roma	A1*	540*, 557 or 569	242, 259 or 275	2.98/2.91
<i>Obv.</i> : M ANTONINVS AVG TR P XXV					
237*	VOTA SVSCEP DECENN II / COS III	A1*	554	251	3.38/3.32
<i>Obv.</i> : M ANTONINVS AVG TR P XXVIII					
238	IMP VII COS III Emperor	A1*	611	307	3.26/3.21
<i>Obv.</i> : M AVREL ANTONINVS AVG					
239	TR P XXXIII IMP X COS III P P Mars	A1*	786	406	3.51/3.47

⁶⁹ Neither BMC nor RIC lists this obverse legend with this reverse. Rather crude lettering, so possibly a counterfeit.⁷⁰ Cf. BMC 535, RIC 231, but IMP M ANTONINVS ...

DIVUS ANTONINUS PIUS (5)

No.	Reverse	Bust	BMC	RIC	Weight (g)
<i>Obv.</i> : DIVVS ANTONINVS					
240	CONSECRATIO eagle on garlanded altar	A1+	48	431	2.99/2.93
241	CONSECRATIO as 240	A1+	48	431	2.84/2.81
242	CONSECRATIO as 240	A1+	48	431	2.82/2.75
243	CONSECRATIO funeral pyre	A3+	61	438	3.60/3.53
244	DIVO PIO square altar	A1+	75	441	2.90/2.87

LUCIUS VERUS (7)

<i>Obv.</i> : IMP L AVREL VERVS AVG					
245	PROV DEOR TR P COS II	A1+	35	463	3.50/3.43
246	PROV DEOR TR P III COS II	A1+	229	491	3.63/3.57
<i>Obv.</i> : L VERVS AVG ARMENIACVS					
247	TR P III IMP II COS II Mars	A1+	282	515	- / 3.03
248	TR P V IMP II COS II Mars stg. r.	A1*	376	529	- / 3.10
<i>Obv.</i> : L VERVS AVG ARM PARTH MAX					
249*	TR P VI IMP III COS II Parthian	A1*	413	548	3.40/3.34
250	TR P VI IMP III COS II Victory	A1*	431	566	3.40/3.33
251	TR P VIII IMP V [COS III] Aequitas std.	A1*	481	595	3.08/3.04

MARCUS AURELIUS FOR FAUSTINA II (15)

<i>Obv.</i> : FAVSTINA AVGVSTA					
252	CERES Ceres std.	E1*	79	669	3.17/3.10
253	CERES as 252	E1*	80	669	3.12/3.06
254	FECVNDITAS Fecunditas stg. r.	E1*	91	677	3.60/3.53
255	FECVNDITAS as 254	E1*	91	677	3.35/3.31
256	FECVNDITAS as 254	E1*	91	677	3.24/3.18
257	FECVNDITAS as 254	E1*	93 var. ⁷¹	677	3.18/3.04
258	FECVNDITAS as 254	E2*	94	677 var. ⁷²	- / 3.41
259	HILARITAS	E1*	100	686	- / 2.71
260	IVNO Juno stg.	E1*	104	688	3.24/3.17
261	IVNO as 260	E1*	104	688	3.10/3.05
262	IVNO as 260	E1*	104	688	3.03/2.93
263	LAETITIA Laetitia stg. facing l.	E2*	131 corr.	701 corr. ⁷³	3.40/3.35
264	MATRI MAGNAE Cybele std. l., with lion	E1*	134	706	3.01/3.01
265	SALVS Salus std.	E2*	148	714	3.20/3.16
266	VENVS Venus stg. l. with dove and sceptre	E1*	167	730	3.49/3.43

DIVA FAUSTINA II (2)

<i>Obv.</i> : DIVA FAVSTINA PIA					
267	CONSECRATIO peacock facing	E1*	as 712-713	743	2.55/2.50
268	CONSECRATIO altar	E1*	725-727 var.	746	3.06/2.98

LUCILLA (4)

<i>Obv.</i> : LVCILLAE AVG ANTONINI AVG F					
269	CONCORDIA Concordia std. l., with statue of Spes but no cornucopiae	E1*	306-307 var.	758	3.25/3.17
<i>Obv.</i> : LVCILLA AVGVSTA					
270	CONCORDIA Concordia std. l. holding patera and cornucopiae	E1*	333-335 var.	759	2.93/2.89
271	CONCORDIA as 270	E1*	333	759	- / 2.84
<i>Obv.</i> : LVCILLAE AVG ANTONINI AVG F					
272	VESTA Vesta holds simpulum and palladium	E1*	325	788	3.15/3.11

COMMODUS (27)

<i>Obv.</i> : L AVREL COMMODVS AVG					
273	TR P V IMP III COS II P P Roma	D2*	M. Aur. 809 var. J var. ⁷⁴		3.72/3.66

⁷¹ Cf. BMC 93, but bust with double row of pearls.⁷² Cf. RIC 677, but bust diademed.⁷³ Both BMC and RIC describe Laetitia incorrectly as standing left. Only the head faces to left.⁷⁴ Cf. BMC 809, RIC 1, but bust draped and cuirassed.

No.	Reverse	Bust	BMC	RIC	Weight (g)
<i>Obv.</i> : M COMMODVS ANTONINVS AVG					
274	TR P V IMP IIII COS II P P trophy	A1*	9	9(a)	3.41/3.36
275	TR P VI IMP IIII COS III P P Pax, with branch and cornucopiae	A1*	63	17	2.49/2.40
276	LIB AVG V TR P VII IMP IIII COS III P P	A1*	72	36(A)	- / 2.79
277	TR P VII IMP V COS III P P Salus	A1*	88 var.	45	2.90/2.83
278	TR P VIII IMP V COS IIII P P Roma stg.	A1*	98 var. ⁷⁵	49 var. ⁷⁶	3.69/3.64
<i>Obv.</i> : M COMMODVS ANTON AVG PIVS					
279	TR P VIII IMP VI COS IIII P P: Felicitas, no modius	A1*	108	61	2.84/2.77
<i>Obv.</i> : M COMM ANT FEL AVG P BRIT					
280	P M TR P X IMP VII COS IIII P P / CONC [MIL]	A1*	159 var.	107 var. ⁷⁷	2.92/2.92
<i>Obv.</i> : M COMM ANT P FEL AVG BRIT					
281	NOBILIT AVG P M TR P XII IMP VIII COS V P P	A1*	217 var.	155	3.42/3.36
282	NOBILIT AVG P M TR P XII IMP VIII COS V P P	A1*	217 var.	155	3.05/3.00
283	PATER SENAT P M TR P XII IMP VIII COS V P P	A1*	223	157	3.26/3.21
284	VIRTVT AVG P M TR P [XII IMP V] III COS V P P	A1*	227	160	2.37/2.37
285	P M TR P XIII IMP VIII COS V P P Genius	A1*	245	167	2.52/2.47
286	P M TR P XIII IMP VIII COS V P P Genius	A1*	247 var.	167	2.91/2.87
287	P M TR P XIII IMP VIII COS V P P Genius	A1*	247 var.	167	2.62/2.57
288	P M TR P XIII IMP VIII COS V P P Libertas	A1*	248 var.	168(a)	2.77/2.70
289	P M TR P XIII IMP VIII COS V P P Libertas	D2*	249 var.	168 var. ⁷⁸	3.63/3.58
290	P M TR P XIII IMP VIII COS V P P Salus	A1*	250A var.	169	- / 2.99
<i>Obv.</i> : M COMM ANT P FEL AVG BRIT P P					
291*	FOR FEL P M TR P XIII COS V DES VI	A1*	262-263 var. and corr.	186 corr. ⁷⁹	2.41/2.36
292	IOV IVVEN P M TR P XIII COS V DES VI	A1*	264 var.	187	2.71/2.67
293	SEC ORB P M TR P XIII COS V DES VI	A1*	269 var.	190	2.19/2.13
<i>Obv.</i> : M COMM ANT P FEL AVG BRIT					
294	ROMAE AETERNAE / C V P P	A1*	239 var.	195	2.55/2.47
<i>Obv.</i> : M COMM ANT P FEL AVG BRIT P P					
295	LIB AVG P M TR P [XV COS] VI	A1*	278 var.	208	2.27/2.21
296	P M TR P XV IMP VIII COS VI Commodus std.	A1*	281	212	- / 2.29
297	FIDEI COH P M TR P XVI COS VI	A1*	299	220	2.50/2.46
<i>Obv.</i> : L AEL AVREL COMM AVG P FEL					
298	[L]IB AVG P M TR P XVII COS VII P P star in field	A1*	309	241 corr. ⁸⁰	- / 2.47
299	SERAPIDI CONSERV AVG	A1*	360	261	2.82/2.77

DIVUS MARCUS AURELIUS (5)

Obv.: DIVVS M ANTONINVS PIVS

300	CONSECRATIO eagle stg. l on bar, with wreath	A1+	16	267	2.97/2.92
301	CONSECRATIO eagle stg. r on thunderbolt	A1+	23	269	3.42/3.37
302	CONSECRATIO as 301, but holding spearhead	A1+	-(see n. 24)	271	2.85/2.75
303	CONSECRATIO eagle stg. l. on garlanded altar	A1+	19	272 var. ⁸¹	2.48/2.44
304*	CONSECRATIO funeral pyre	A1+	28	275	3.25/3.15

CRISPINA (2)

Obv.: CRISPINA AVGVSTA

305*	CONCORDIA clasped hands	E1*	38	278(B)	2.84/2.78
306	VENVS	E1*	46	286a	3.03/2.98

SEPTIMIUS SEVERUS (6)

Obv.: IMP CAE L SEP SEV PERT AVG

307	LEG XXII / TR P COS	A1*	23 var.	15	- / 2.82
308	VICT AVG TR P COS Victory walking l.	A1*	30-31 var.	22	2.41/2.37

⁷⁵ Cf. BMC 98, but no drapery.⁷⁶ Cf. RIC 49, but obverse legend A.⁷⁷ Cf. BMC 159, RIC 107, but different obverse legend which is recorded only at BMC 160 note and RIC 110 note, with references to Cohen.⁷⁸ Cf. BMC 249, RIC 168, but bust draped and cuirassed.⁷⁹ Single cornucopiae, not double as recorded by BMC and RIC.⁸⁰ Libertas stands to left, not to right.⁸¹ RIC records only eagle to right on garlanded altar.

No.	Reverse	Bust	BMC	RIC	Weight (g)
<i>Obv.: L SEPT SEV PERT AVG IMP III</i>					
309*	PACI AVGVSTI	A1*	70–71 var.	37	3.52/3.43
<i>Obv.: L SEPT SEV PE[RT AVG] IMP IIII</i>					
310	MARS PACATOR	A1*	82	45	– / 2.49
<i>Obv.: [L] SEPT SEV PERT AVG IMP []</i>					
311	P M TR P III COS II P P Mars	A1*	105, 110ff or 122–123	52, 60 or 67	3.01/2.94
<i>Obv.: L SEPT SEV PERT AVG IMP V</i>					
312	P M TR P III [CO]S II P P Minerva	A1*	as 114–115	61	2.93/2.86

SEPTIMIUS SEVERUS FOR JULIA DOMNA (1)

<i>Obv.: IVLIA AVGVSTA</i>					
313*	MATER DEVM Cybele std., no sceptre	E1*	54	565	2.98/2.89

IRREGULAR (2)

Cast forgery

<i>Obv.: IMP CAES DOMIT AVG GERM P M TR P XV</i>					
314*	IMP XXII COS XVII CENS P P P Minerva stg. l., with thunderbolt and spear; shield at feet	A1*		as 192	– / 2.71

Base metal counterfeit (fragments)

315	incomplete and much corroded				
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Appendix to hoard 1 catalogue: coins found in September 2005

ANTONINUS PIUS

<i>Obv.: ANTONINVS AVG PIVS P P TR P XVIII</i>					
A	COS IIII Annona	A1*	832	239	3.02/–

DIVUS ANTONINUS PIUS

<i>Obv.: DIVVS ANTONINVS</i>					
B	CONSECRATIO funeral pyre	A3*	438	61	3.15/–

HOARD 2

NERO (3)

<i>Obv.: NERO CAESAR AVGVSTVS</i>						
<i>No.</i>	<i>Reverse</i>	<i>Bag</i>	<i>Bust</i>	<i>BMC</i>	<i>RIC</i> ²	<i>Weight</i>
1	ROMA	1	A1*	as 83–85	55	3.27/3.19
2	SALVS	1	A1*	90	60	3.09/3.01
<i>Obv.: IMP NERO CAESAR AVG P P</i>						
3*	SALVS	1	A1*	98	71	3.31/3.22

OTHO (1)

Obv.: I[MP OT]HO CAESAR AVG TR P						
4*	PONT MAX Jupiter	2	A1+	10	21	2.94/2.81

VITELLIUS (1)

Obv.: [A] VITELLIVS GERM IMP [AVG TR P]						
5*	PONT MAXIM	1	A1*	34	107	3.42/3.24

VESPASIAN (29)

Obv.: IMP CAESAR VESPASIANVS AVG					RIC	
6*	COS ITER TR POT Pax std.	1	A1*	29	10	3.30/3.18
7	COS ITER TR POT as 6	1	A1*	29	10	2.99/2.83
8	COS ITER [TR P]OT as 6	2	A1*	30	10	3.18/3.12
9	[COS ITER] TR POT as 6	2	A1*	as 26–30	10	3.24/3.12
10	COS ITER TR POT as 6	2	A1*	as 26–30	10	3.14/3.08
11	IVDAEA Jewess and trophy	1	A1*	35	15	3.28/3.22
12	IVDAEA as 11	1	A1*	35	15	3.25/3.16
13	IVDAEA as 11	2	A1*	37	15	3.23/3.19
14	IVDAEA as 11	1	A1*	39	15	3.13/3.03

No.	Reverse	Bag	Bust	BMC	RIC	Weight (g)
<i>Obv.</i> : IMP CAES VESP AVG P M						
15	AVGVV / TRI POT	1	A1*	50	30	3.04/3.00
16	TRI POT Vesta	2	A1*	58 var.	37	3.03/2.97
<i>Obv.</i> : IMP CAES VESP AVG P M COS IIII						
17	[C]ONC[ORDIA AVGVSTI]	1	A1*	65	43	3.08/3.02
18	TRI POT Vesta std.	2	A1*	70	49	3.04/2.97
<i>Obv.</i> : IMP CAES VESP AVG CENS						
19	PON[TIF] MAXIM Vespasian	2	A1*	100	65	3.25/3.20
<i>Obv.</i> : IMP CAES VESP AVG CEN						
20	SALVS [AVG]	2	A1*	105	67	3.24/3.18
<i>Obv.</i> : IMP CAESAR VESPASIANVS AVG						
21	PON MAX TR P COS V Vespasian	1	A1*	136	77	3.27/3.18
22	COS VI eagle	1	A1*	160* var.	89	3.02/2.94
23	PON MAX TR P COS VI Pax	2	A1*	162	90	3.19/3.13
24	PON MAX TR P COS VI as 23	2	A1*	162	90	3.15/3.10
25	PON MAX TR P COS VI as 23	1	A1*	162	90	2.83/2.73
26	PON MAX TR P COS VI as 23	1	A1*	162	90	2.81/2.74
27	PON MAX TR P COS VI Victory on prow	1	A1*	166	93	3.22/3.13
28	COS VII Eagle, head to left	2	A1*	180	99(a)	3.17/3.09
29	COS VIII Mars	2	A1*	201	103	3.19/3.12
30	COS VIII Mars, with corn-ear	1	A1*	203	104	3.14/3.06
31	COS VIII oxen	1	A1*1	209	107	3.32/3.27
<i>Obv.</i> : CAESAR VESPASIANVS AVG						
32	IMP XIX modius and corn-ears	2	A1*	216	110	3.16/3.09
33	IMP XIX as 32	2	A1*1	218	110	3.11/2.99
<i>Obv.</i> : IMP CAESAR VESPASIANVS AVG						
34	[I]OVIS CVSTOS	2	A1*	277	124(a)	3.20/3.12

VESPASIAN FOR TITUS (4)

<i>Obv.</i> : T CAES IMP VESP CEN						
35*	PONTIF MAXIM	2	A1*	112 ⁸²	—	3.37/3.22
<i>Obv.</i> : T CAESAR IMP VESPASIA[N(VS)]						
36	COS V eagle	1	A1*	191–192	191(a or b)	3.03/2.86
<i>Obv.</i> : T CAESAR IMP VESPASIANVS						
37	COS VI oxen	2	A1*	225	197	3.22/3.16
38	COS [VI] prow of ship	2	A1*	226	198	3.43/3.35

VESPASIAN FOR DOMITIAN (2)

<i>Obv.</i> : CAES AVG F DOMIT COS III						
39	PRINCEPS IVVENTVT	1	A1*	156	233	3.20/3.12
<i>Obv.</i> : CAESAR AVG F DOMITIANVS COS VI						
40	PRINCEPS IVVENTVTIS Vesta	1	A1*	262	244	3.16/3.11

TITUS (2)

<i>Obv.</i> : IMP TITVS CAES VESPASIAN AVG P M						
41*	TR P IX IMP XV COS VIII P P elephant	1	A1*	43 var.	22a	3.39/3.33
42	TR P IX IMP XV COS VIII P P thunderbolt	1	A1*	50	23a	3.25/3.16

TITUS FOR DOMITIAN (4)

<i>Obv.</i> : CAESAR DIVI F DOMITIANVS COS VII						
43	PRINCEPS [IVV]ENTVTIS altar	1	A1*	94	50	3.20/3.11
44	PRINCEPS IVVENTVTIS as 43	2	A1*	94	50	3.06/3.00
45	PRINCEPS IVVENTVTIS as 43	2	A1*	95	50	3.09/3.04
46	PRINCEPS IVVENTVTIS helmet	2	A1*	98	51	3.01/2.93

JULIA TITI (1)

<i>Obv.</i> : IVLIA AVGVSTA T AVG F						
47*	VENVS AVG	2	E1*	140	55a	3.20/3.12

DIVVS VESPASIAN (2)

<i>Obv.</i> : DIVVS AVGVSTVS VESPASIANVS						
48	S C on shield, with capricorns	2	A1*	131	63	3.23/3.19
49*	S C, as 48	2	A1*	129ff var.	63	3.04/2.99

⁸² This is a reverse of Vespasian paired with an obverse of Titus: not listed by *RIC*.

DOMITIAN (8)

No.	Reverse	Bag	Bust	BMC	RIC	Weight (g)
Obv.: IMP CAES DIVI VESP F DOMITIAN AVG P M						
50*	[T]R P COS VII D[ES VII]I P P wreath on chairs	2	A1*	18–19 var.	18 var. ⁸³	3.23/3.18
Obv.: IMP CAES DOMIT AVG GERM P M TR P VI						
51	IMP XIII COS XIII CENS P P P Minerva on prow	1	A1*	103–105 var.	92	3.45/3.34
52	IMP XIII COS XIII CENS P P P Minerva with thunderbolt and spear	1	A1*	106	93	3.23/3.15
Obv.: IMP CAES DOMIT AVG GERM P M TR P X						
53	IM[PXXI COS XV CENS P P P Minerva on prow	2	A1*	179	153	3.09/3.08
Obv.: [I]MP CAES DOMIT AVG GERM P M TR P XI						
54	IMP XXI COS XVI CENS P P P Minerva stg. l. with spear	1	A1*	194	169	3.26/3.20
Obv.: IMP CAES DOMIT AVG GERM P M TR P XII						
55	IMP XXII [COS XVI C]ENS P P P Minerva with thunderbolt and spear	2	A1*	205	173	3.33/3.29
56	IMP XXII COS XVI CENS P P P Minerva stg. l. with spear	1	A1*	207	174	3.16/3.11
Obv.: IMP CAES DOMIT AVG GERM P M TR P XIII						
57	IMP XXII COS XVI CENS P P P Minerva with thunderbolt and spear	2	A1*	218	177	3.25/3.22

NERVA (1)

Obv.: IMP NERVA CAES AVG P M TR P COS III P P						
58*	CONCORDIA EXERCITVVM clasped hands, holding eagle on prow	1	A1*	29	15	3.19/3.14

TRAJAN (65)

Obv.: IMP CAES NERVA TRAIAN AVG GERM						
59*	P M TR P COS II P P Vesta with aegis	2	A3*	25–28 var.	9 var. ⁸⁴	2.83/2.73
60	PONT MAX TR POT COS II Pax stg.	2	A1*	15	17	3.41/3.35
61	PONT MAX TR POT COS II as 60	1	A1*	as 14–17	17	3.36/3.31
62	PONT MAX TR POT COS II Victory std. l., with patera and palm	2	A1*	21	22	2.57/2.51
63	PONT MAX TR POT COS II as 62	2	A1*	21 var.	22	3.44/3.38
64	P M TR P COS III P P Abundantia	1	A1*	70 (Iustitia?)	32	3.07/2.97
65	P M TR P COS III P P Concordia	1	A1*	64–65 var.	33	3.34/3.26
66	P M TR P COS III P P Hercules	2	A1*	87	49	2.95/2.85
67	P M TR P COS III P P Mars	2	A3*	96–97 var.	52	3.12/3.04
68	P M TR P COS III P P Victory on prow	2	A2*	106–107 var.	59	3.44/3.36
69	P M TR P COS III P P Victory inscribing on shield	1	A1*	113	65	3.33/3.23
Obv.: IMP TRAIANO AVG GER DAC P M TR P						
70	COS V P P S P Q R OPTIMO PRINC / DAC CAP Dacian std. l.	2	A3*	391	98	3.41/3.35
71	COS V P P S P Q R OPTIMO PRINC / DAC CAP Dacian stg. l.	2	A3*	383	99	3.28/3.18
72	COS V P P S P Q R OPTIMO PRINC as 71	2	A3*	383	99	3.19/3.12
73	COS V P P S P Q R OPTIMO PRINC / DANVVIVS	1	A3*	395	100	3.47/3.38
74	COS V P P S P Q R OPTIMO PRINC / DANVVIVS	2	A3*	395	100	3.15/3.04
75	COS V P P S P Q R OPTIMO PRINC Roma stg.	2	A3*	271	115 var. ⁸⁵	3.25/3.16
76	COS V P P S P Q R OPTIMO PRINC Roma std.	2	A3*	276	116	3.42/3.31

⁸³ This obverse legend has been recorded for this issue only with 'tripod and ravens' reverse (see BMC 22 note and RIC 21 note).⁸⁴ Cf. BMC 25–28, RIC 9, but bust has drapery on left shoulder and aegis.⁸⁵ Cf. RIC 115, but drapery on left shoulder only.

No.	Reverse	Bag	Bust	BMC	RIC	Weight (g)
77	COS V P P S P Q R OPTIMO PRINC Aequitas stg.	1	A3*	281	118 var. ⁸⁶	3.35/3.22
78	COS V P P S P Q R OPTIMO PRINC Aequitas std.	1	A3*	288	119	3.32/3.21
79	COS V P P S P Q R OPTIMO PRINC as 78	2	A3*	288	119	2.53/2.44
80	COS V P P S P Q R OPTIMO PRINC Felicitas stg. with column	2	A3*	305	120	3.50/3.43
81	COS V P P S P Q R OPTIMO PRINC as 80	2	A3*	305	120	3.36/3.32
82	COS V P P S P Q R OPTIMO PRINC as 80	1	A2*?	305	120	3.29/3.21
83	COS V P P S P Q R OPTIMO PRINC Felicitas stg., no column	1	A3*	301	121	3.29/3.17
84	COS V P P S P Q R OPTIMO PRINC as 83	1	A3*	301	121	3.24/3.09
85	COS V P P S P Q R OPTIMO PRINC as 83	1	A3*	301	121	3.13/2.99
86	COS V P P S P Q R OPTIMO PRINC Fortuna	1	A3*	306	122	3.51/3.36
87	COS V P P S P Q R OPTIMO PRINC as 86	1	A3*	306	122	3.26/3.12
88	COS V P P S P Q R OPTIMO PRINC Spes	1	A3*	319	127 var. ⁸⁷	3.33/3.23
89*	COS V P P S P Q R OPTIMO PRINC Victory walking l. on shields	1	A3*	337	127 var. ⁸⁸	3.38/3.31
90	COS V P P S P Q R OPTIMO PRINC as 89	1	A3*	337	131 var.	3.31/3.22
91	COS V P P S P Q R OPTIMO PRINC as 89	1	A3*	337	131 var.	3.26/3.16
92	COS V P P S P Q R OPTIMO PRINC as 89	1	A3*	337	131 var.	2.88/2.74
93*	COS V P P S P Q R OPTIMO PRINC trophy, with one round and one oval shield	1	A3*	369 var. ⁸⁹	147 var. ⁹⁰	3.30/3.14
Obv.:	IMP TRAIANO AVG GER DAC P M TR P COS V P P					
94	S P Q R OPTIMO PRINCIPI Abundantia stg. l.	1	C2*	171 var. ⁹¹ (Annona)	165	3.10/2.94
95	S P Q R OPTIMO PRINCIPI as 94 (Annona)	2	A3*	169	166	3.20/3.13
96	S P Q R OPTIMO PRINCIPI as 94	2	A3*, with aegis	171 (Annona)	166 var. ⁹²	3.44/3.33
97	S P Q R OPTIMO PRINCIPI as 94	1	D2*	173 (Annona)	167	3.24/3.05
98	S P Q R OPTIMO PRINCIPI Aequitas stg.	2	A3*	167 var.		169 3.38/3.30
99	S P Q R OPTIMO PRINCIPI Felicitas, with altar	2	A3*	196	174	3.31/3.15
100	S P Q R OPTIMO PRINCIPI as 99	2	A3*	197	174	3.33/3.15
101	S P Q R OPTIMO PRINCIPI Dacia, with trophy	2	A3*	187	222	3.20/3.14
102*	S P Q R OPTIMO PRINCIPI trophy	1	A3*	251 var.	226 var. ⁹³	3.34/3.15
Obv.:	IMP TRAIANO AVG GER DAC P M TR P COS VI P P					
103	S P Q R OPTIMO PRINCIPI / ALIM ITAL	2	A3*	470	243	3.26/3.09
104	CONSERVATORI PATRIS PATRIAE	2	C2*	495	249	3.22/3.11
105	S P Q R OPTIMO PRINCIPI Felicitas, no altar	1	C2*	424	271	3.34/3.23
106	S P Q R OPTIMO PRINCIPI Genius stg. l.	1	C2*	429	275	3.57/3.37
107	S P Q R OPTIMO PRINCIPI Trajan's Column	1	A3*	451 var.	295	3.06/2.97
Obv.:	IMP TRAIANO OPTIMO AVG GER DAC P M TR P					
108	COS VI P P S P Q R Jupiter	2	C2*	514–515 var.	298	3.22/3.09
109	[C]OS VI P P S P Q R Genius	2	C2*	519	303	3.33/3.26
110	COS VI P P S P Q R Trajan's Column	2	C2*	524 var.	307	2.97/2.84
Obv.:	IMP CAES NER TRAIANO OPTIMO AVG GER DAC					
111	P M TR P COS VI P P S P Q R / FORT RED	1	C2*	580	318	2.96/2.82

⁸⁶ Cf. RIC 118, but drapery on left shoulder only.⁸⁷ Cf. RIC 127, but drapery on left shoulder only.⁸⁸ Cf. RIC 131, but bust has drapery on left shoulder, and Victory walks over shields.⁸⁹ On reverse – at base, to right, two curved swords.⁹⁰ Cf. RIC 147, but drapery on left shoulder only.⁹¹ Cf. BMC 171, but draped bust.⁹² Cf. RIC 166, but aegis on bust.⁹³ Two curved swords and two spears at base of trophy.

No.	Reverse	Bag	Bust	BMC	RIC	Weight (g)
<i>Obv.: IMP CAES NER TRAIAN OPTIM AVG GERM [DAC]</i>						
112	PARTICO P M TR P COS VI P P S P Q R Virtus	1	C2*	631	334	3.06/2.99
<i>Obv.: IMP CAES NER TRAIANO OPTIMO AVG GER DAC</i>						
113	P M TR P COS VI P P S [P Q] R Mars	2	C2*	536	337	3.55/3.48
114	P M TR P COS VI P P S P Q R Mars	2	C2*	536	337	3.03/2.95
115	P M TR P C[OS VI P] P S P Q R Mars	2	A3*, with aegis	536 var. ⁹⁴	339	3.35/3.27
<i>Obv.: IMP CAES NER TRAIAN OPTIM AVG GER DAC PARTHICO</i>						
116	P M TR P COS VI P P S P Q R Mars	1	C2	591	340	3.56/3.43
<i>Obv.: IMP CAES NER TRAIANO OPTIMO AVG GER DAC</i>						
117	P M TR P COS VI P P S P Q R Felicitas	1	C2*	541–544 var.	343	3.23/3.16
118	P M TR P COS VI P P S P Q R Genius	2	C2*	549 var.	347	3.09/3.04
119	P M TR P COS VI P P S P Q R Genius	2	C2*	550–552 var.	347	3.24/3.16
120	P M TR P COS VI P P S P Q R Genius	1	A3*	548 var.	347 var. ⁹⁵	3.14/3.07
<i>Obv.: IMP CAES NER TRAIAN OPTIM AVG GER DAC PARTHICO</i>						
121	P M TR P COS VI P P S P Q R Genius	2	C2*	595–596 var.	349	3.55/3.49
<i>Obv.: [IMP] CAES NER TRAIANO OPTIMO AVG GER DAC</i>						
122	P M TR P COS VI P P S P Q R Virtus	1	C2*	562	355	3.38/3.28
123	P M [TR P] COS VI P P S P Q R Virtus	2	C2*	563	355	3.37/3.30

HADRIAN (43)

<i>Obv.: IMP CAES TRAIAN HADRIAN OPT AVG GER DAC</i>						
124	PARTIC [DIVI] TRAIAN AVG F P M TR P COS P P	1	D1*	2–4	2(c)	3.33/3.23
<i>Obv.: [IMP] CAESAR TRAIAN HADRIANVS [AVG]</i>						
125	P M TR P [CO]S DE[S II] / FORT RE[D]	1	A3*	38 var.	18(a)	3.36/3.27
126	P M TR P COS II / AET AVG	1	A2*	57	38	3.03/2.93
127	P M [TR P] COS II / CONCORD	1	A2*	61–62 var.	39(b)	3.15/3.08
128	P M TR P COS II / FORT RED	2	A2*	70A	41(a)	3.37/3.28
129	P M TR P COS II / IVSTITIA	2	A3*	74	42(a)	3.35/3.28
130	P M TR P COS DES III / FEL AVG	1	A2*	91	50(a)	3.72/3.64
131	P M TR P COS III Roma std. l., with shield	2	A1*	137 var.	77(a)	3.46/3.40
132	P M TR P COS III Aequitas	1	A1*	155	80(a)	3.02/2.94
133	P M TR P COS III Aequitas	1	A2*	157–158 var.	80(b)	3.45/3.31
134	P M TR P COS III Aequitas	1	A2*	158A	80(b)	3.30/3.20
135	P M TR P COS III Concordia	1	A2*	166	82(b)	3.57/3.40
136	P M TR P COS III Fortuna, leaning on column	1	A3*	170	86(b)	3.48/3.39
137	P M TR P COS III Pax std.	1	A1*	197–198 var.	95(a)	3.42/3.29
138	P M TR P COS III Pietas stg. r.	2	A2*	205	97(b)	3.34/3.25
139	P M TR P COS III Spes	2	A1*	210	100(a)	3.00/2.87
140	P M TR P COS III Victory with trophy	2	C1*	218 var.	101 var. ⁹⁶	3.47/3.40
141	P M TR P COS III / FEL P R	1	A1*	266	120(a)	3.36/3.19
142	P M TR P COS III / FEL P R	1	A3*	264	120 var. ⁹⁷	3.27/3.13
143	P M TR P COS III / HILAR P R	2	A2*	279 var.	126(b)	3.16/3.09
144	P M TR P COS III / SAL AVG Salus std.	1	A1*	314	137(a)	3.23/3.13
<i>Obv.: HADRIANVS AVGVSTVS</i>						
145	COS III Roma stg. r.	2	A2*	356	160(d)	3.26/3.20
146	COS III Roma stg. r.	1	A2*	356	160(d)	3.21/3.08
147	COS III Roma stg. l.	2	A2*	361	161(d)	3.57/3.48
148	COS III Pudicitia stg. l.	2	A2*	405	176(d)	3.24/3.16
149	TRANQVILLITAS AVG PP / COS III	1	A1+	577 var.	222(a)	3.59/3.46
<i>Obv.: HADRIANVS AVG COS III P P</i>						
150	ADVENTVS AVG Roma stg. r.	1	A1+	581	225(a)	3.45/3.35
151*	FELICITATI / AVGVSTI	2	A1*	621	240(d)	3.49/3.29
152	FELICITATI / AVGVSTI	2	A2*	524	240(e)	3.64/3.57
153	FIDES PVBLICA	2	A1+	627 var.	241A(a)	3.38/3.27
154	FIDES PVBLICA	1	A1+	627 var.	241A(a)	3.38/3.23
155	FORTVNA AVG Fortuna with rudder	2	A1*	640	244(d)	3.30/3.13

⁹⁴ Cf. BMC 536, but bust with aegis.⁹⁵ Cf. RIC 347, but drapery on left shoulder only.⁹⁶ Cf. RIC 101, but draped bust.⁹⁷ Cf. RIC 120, but drapery on left shoulder.

No.	Reverse	Bag	Bust	BMC	RIC	Weight (g)
156	FORTVNAE REDVCI	1	A1+	650	248(a)	3.24/3.11
157	MONETA AVG	2	A1*	681	256(d)	3.47/3.34
158	PROVIDENT[II]A AVG no column	2	A1+	694	261(a)	3.45/3.37
159	SALVS AVG Salus stg. r.	1	A1*	719	267(d)	3.27/3.18
160	VICTORIA AVG Victory stg. r.	1	A1+	758	282(a)	3.26/3.12
161	AEGYPTOS no snake	2	A3+	799	297(b)	3.53/3.45
162	AEGYPTOS no snake	1	A1*	801	297(d)	3.45/3.19
<i>Obv.</i> : HADRIANVS AVGVSTVS P P						
163	COS III Roma std. r.	2	A1*	476	332	3.14/3.05
164	COS III Aequitas	1	C2*	483 var. ⁹⁸	339(e)	3.20/3.11
165	COS III Pudicitia	1	A1*	491	343(c)	3.78/3.63
166	COS III Victory std. l.	1	A1*	497	345(c)	3.45/3.25

SABINA (3)

<i>Obv.</i> : SABINA AVGVSTA						
167	IVNONI REGINAE no peacock	1	E2*	940	395(a)	3.47/3.20
168	IVNONI REGINAE no peacock	2	E2*	940	395(a)	3.36/3.28
<i>Obv.</i> : SABINA AVGVSTA HADRIANI AVG P P						
169	PVDICITIA not raising veil	1	E2*	912	406	3.44/3.34

HADRIAN FOR ANTONINUS PIUS (1)

<i>Obv.</i> : IMP T AEL CAES ANTONINVS						
170*	TRIB POT COS Concordia leaning on column	2	A1+ var.	1010–1011	449 corr. ⁹⁹	3.31/3.24

ANTONINUS PIUS (35)

<i>Obv.</i> : IMP T AEL CAES ANTONINVS AVG						
171	PONT MAX TR POT COS Fides	2	A1+	6 var. ¹⁰⁰	5(a)	3.24/3.09
<i>Obv.</i> : IMP T AEL CAES HADRI ANTONINVS						
172	AVG PIVS P M TR P COS. DES II Minerva	1	A1+	11	9(a)	3.45/3.30
173	AVG PIVS P M TR P COS II clasped hands, holding caduceus	1	A1+	62 var.	27(a) var. ¹⁰¹	3.58/3.48
<i>Obv.</i> : IMP T AEL CAES HADR ANTONINVS						
174	AVG PIVS P M TR P COS II P P clasped hands, holding caduceus	1	A1+	78 note	37(a)	3.33/3.24
<i>Obv.</i> : ANTONINVS AVG PIVS P P						
175	TR POT COS II Fortuna	2	A1*	102	49(b)	3.42/3.30
176	TR POT COS II modius	1	A1+	117 var.	58(a)	3.30/3.12
<i>Obv.</i> : ANTONINVS PIVS P P TR P COS III						
177	ANNONA AVG	1	A1*	181 var.	62(a)	3.20/3.06
178	ANNONA AVG	2	A1*	180–181 var.	62(a)	3.22/3.03
179	APOLLINI AVGVSTO	1	A1*	189 var.	63B(c)	3.45/3.33
180	CLEMENTIA AVG	2	A1*	194–195 var.	64(c)	3.24/3.17
181	GENIO SENATVS	1	A1+	204–205 var.	69(a)	3.24/3.07
182	GENIVS POP ROMANI	2	A1+	207–208 var.	70(a)	3.38/3.30
<i>Obv.</i> : ANTONINVS AVG PIVS P P						
183	[T]R POT COS III / ITALIA	1	A1*	250	98(c)	3.49/3.34
<i>Obv.</i> : ANTONINVS AVG PIVS P P TR P COS III						
184	IMP II	2	A1*	489	107(b)	3.25/3.20
185	IMPERATOR II Victory stg. l.; no globe	1	A1*	500 var.	111(e) var. ¹⁰²	3.29/3.05
<i>Obv.</i> : ANTONINVS AVG PIVS P P						
186	COS IIII Aequitas	2	A1*	514	127(c)	3.84/3.77
187	COS IIII clasped hands	1	A1*	535	136	3.53/3.44
188	TR POT COS IIII / LIB IIII Liberalitas holding abacus and cornucopiae	1	A2*	569	155 var. ¹⁰³	3.57/3.47

⁹⁸ Cf. *BMC* 483, but draped bust.⁹⁹ Cf. *RIC* 449, but Concordia holds double cornucopiae as well as patera.¹⁰⁰ Cf. *BMC* 6, but IMP T AEL ...¹⁰¹ Cf. *BMC* 62, *RIC* 27(a), but HADRI.¹⁰² Cf. *RIC* 111(e), but undraped bust.¹⁰³ Cf. *RIC* 155, but drapery on left shoulder.

No.	Reverse	Bag	Bust	BMC	RIC	Weight (g)
189	TR POT COS IIII / LIB AVG Liberalitas holding vexillum and cornucopiae	1	A1*	576	156	3.61/3.51
190	[VO]TA SOL DEC II / [COS I]IIII <i>Obv.</i> : ANTONINVS AVG PIVS P P TR P XI	2	A1*	579	291 note	3.39/3.14
191	COS IIII Annona, with ship	1	A1*	621	163	3.53/3.36
192	COS IIII Salus, with rudder	1	A1*	623	167	3.34/3.20
	<i>Obv.</i> : ANTONINVS AVG PIVS P P TR P XII					
193	COS IIII Annona, without ship	1	A1*	658	175	3.46/3.35
194	COS IIII Annona, without ship	1	A1*	659	175	3.69/3.64
	<i>Obv.</i> : ANTONINVS AVG PIVS P P TR P XII (or XV)					
195	COS IIII Annona, with ship	1	A1*	657 or 765	176 or 204	2.77/2.62
	<i>Obv.</i> : ANTONINVS AVG PIVS P P TR P XII					
196	COS IIII Aequitas	1	A1*	655	177(d)	3.31/3.19
197	COS IIII Genius	2	A1*	662 (Bonus Eventus)	180	2.99/2.93
198	COS IIII Salus	1	A1*	670	181	3.48/3.29
	<i>Obv.</i> : IMP CAES T AEL ANTONINVS AVG PIVS P P					
199	TR POT XIIII COS IIII / PAX	1	A1*	729–733 var.	200(c)	3.34/3.23
200	TR POT XIIII COS IIII / TRANQ	2	A1*	736	202(b)	3.21/2.15
	<i>Obv.</i> : IMP CAES T AEL HADR ANTONINVS AVG PIVS P P					
201*	TR POT XV COS IIII / TRANQ	2	A1*	757–761 var.	218 corr. ¹⁰⁴	3.17/3.08
	<i>Obv.</i> : ANTONINVS AVG PIVS P P TR P XVI					
202	COS [IIII] Annona	1	A1*	787	221	3.05/2.92
	<i>Obv.</i> : ANTONINVS AVG PIVS P P TR P XVII					
203	COS IIII Annona, with ship	2	A1*	809 var.	231	3.19/3.10
	<i>Obv.</i> : ANTONINVS AVG PIVS P P IMP II					
204	TR POT XX COS IIII Annona stg. r.	2	A1*	886 (Tranquillitas)	260	3.39/3.29
	<i>Obv.</i> : ANTONINVS AVG PIVS P P TR P XXIII					
205	PACI AVG COS IIII	2	A1*	981	301	3.42/3.37

FAUSTINA I (1)

Obv.: FAVSTINA AVGVSTA

206	IVNONI REGINAE Juno	1	E1*	137	338	3.29/3.12
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DIVA FAUSTINA I (18)

Obv.: DIVA FAVSTINA

207	AETERNITAS Juno(?)	2	E1*	345	344	3.07/2.96
208	AETERNITAS Juno(?)	1	E1*	345–347 var.	344	3.47/3.29
	<i>Obv.</i> : DIVA AVG FAVSTINA					
209	AETERNITAS Venus(?)	1	E1*	280–284 var. (Juno?)	346(b)	3.35/3.14
210*	AETERNITAS Venus(?)	1	E1*	280 var.	346(b) var. ¹⁰⁵	3.36/3.18
	<i>Obv.</i> : DIVA FAVSTINA					
211	AETERNITAS Fortuna holding globe and rudder	1	E1*	362–365 var.	348(a)	3.02/2.83
212	AETERNITAS Providentia with veil, holding globe	2	E1*	375 var.	351(a)	3.54/3.47
213	AETERNITAS as 212	2	E1*	375 var.	351(a)	3.41/3.33
214	AVGVSTA Ceres stg. l., with torch and sceptre	1	E1*	402	356	3.39/3.28
215	AVGVSTA Ceres stg. r., with sceptre and corn-ears	2	E1*	389–394 var.	358	3.92/3.77
216	AVGVSTA Ceres stg. l., with corn-ears and torch	1	E1*	409	360(a)	3.89/3.76
217	AVGVSTA Ceres stg. g, holding torch and raising fold of robe	2	E1*	421	362	3.47/3.41
218	AVGVSTA as 217	1	E1*	421	362	3.25/3.13
219	AVGVSTA Vesta stg. l., sacrificing over altar	1	E1*	440	370	3.54/3.45
220	AVGVSTA as 219	1	E1*	440	370	3.16/3.04
	<i>Obv.</i> : DIVA AVG FAVSTINA					
221	CONSECRATIO Ceres	2	E1*	301	382a	3.42/3.28

¹⁰⁴ Cf. *RIC* 218, but no globe below rudder.¹⁰⁵ Cf. *BMC* 280, *RIC* 346(b), but reverse design in mirror image, with Venus/Juno facing to left.

No.	Reverse	Bag	Bust	BMC	RIC	Weight (g)
<i>Obv.</i> : DIVA FAVSTINA						
222	CONSECRATIO peacock walking r.	2	E1*	476	384	3.36/3.26
223	CONSECRATIO peacock walking r.	2	E1*	471–476 var.	384	3.48/3.40
<i>Obv.</i> : DIVA AVG FAVSTINA						
224	PIETAS AVG temple	2	E1*	319	396	3.44/3.38

ANTONINUS PIUS AND MARCUS AURELIUS (I)

<i>Obv.</i> : ANTONINVS AVG PIVS P P TR P COS III						
225	AVRELIVS CAESAR AVG PII F COS bust dr., head bare, r.	1	A1+	147	415(b)	3.26/3.12

ANTONINUS PIUS FOR MARCUS AURELIUS (11)

<i>Obv.</i> : AVRELIVS CAESAR AVG PII F COS						
226	IVVENTAS	2	A1+	270	423(a)	3.18/3.10
227	PIETAS AVG	2	A1+	277–279 var.	424(a)	3.43/3.36
<i>Obv.</i> : AVRELIVS CAESAR AVG PII F						
228	COS II Honos	2	A1+	594	429(a)	3.53/3.46
229	COS II Honos	2	A1+	594	429(a)	3.41/3.36
230	COS II Honos	1	A1+	594	429(a)	3.30/3.22
231	COS II Honos	2	A1+	595	429(a)	3.24/3.18
232	TR POT COS II Spes	2	A1+	618	437	3.74/3.65
233	TR POT III COS II Providentia	1	A1+	699	446	3.01/2.91
<i>Obv.</i> : AVRELIVS CAES ANTON AVG PII F						
234*	TR POT XII COS II Felicitas	2	A1+	919	475(a) var. ¹⁰⁶	2.89/2.82
235	TR POT XIII COS II Spes	2	A1+	960	479(a)	3.03/2.89
<i>Obv.</i> : AVRELIVS CAES AVG PII F						
236	TR POT XIII COS II Minerva walking r.	1	A1+	999	483	3.35/3.26

ANTONINUS PIUS FOR FAUSTINA II (9)

<i>Obv.</i> : FAVSTINA AVGVSTA						
237	AVGVSTI PII FIL Venus	1	E1*	1099	495(a)	3.48/3.40
238	AVGVSTI PII FIL Venus	2	E1*	1099 var.	495(a)	3.25/3.17
239	AVGVSTI PII FIL Venus	1	E1*	1099 var.	495(a)	3.19/3.05
<i>Obv.</i> : FAVSTINA AVG PII AVG FIL						
240	CONCORDIA Concordia std.	1	E1*	1086–1087 var.	502(a) legend 3	3.34/3.18
241	CONCORDIA Concordia std.	2	E1*	1088 var.	502(a) legend 3	2.87/2.74
<i>Obv.</i> : FAVSTINAE AVG PII AVG FIL						
242	PVDICITIA no altar	1	E1*	1051	507(a)	3.31/3.21
<i>Obv.</i> : FAVSTINA AVGVSTA AVG PII F						
243	PVDICITIA with altar	1	E1*	1092 var.	508(a)	3.57/3.49
<i>Obv.</i> : FAVSTINAE AVG PII AVG FIL						
244	VENVS Venus stg.l.; dolphin on rudder	1	E1*	1067	517(a)	3.38/3.27
245	VENVS as 244	2	E1*	1075	517(a)	2.96/2.83

MARCUS AURELIUS (12)

<i>Obv.</i> : IMP M AVREL ANTONINVS AVG						
246*	CONCORD AVG TR P XV / COS III cornucopiae under seat	2	A1*	4 var. ¹⁰⁷	3	3.32/3.25
247	PROV DEOR TR P XV COS III Providentia stg.	2	B2*	22	22–25 var. ¹⁰⁸	3.46/3.38
<i>Obv.</i> : M ANTONINVS AVG						
248	CONCORD AVG TR P XVI / COS III statue of Spes set on cornucopiae	1	A1+	195	38	3.53/3.44
<i>Obv.</i> : IMP M ANTONINVS AVG						
249	PROV DEOR TR P XVII COS III	1	A1+	218	70	3.39/3.24
<i>Obv.</i> : M ANTONINVS AVG ARMENIACVS						
250	PIETAS AVG TR P XX COS III	2	A1*	397	148	3.39/3.21
<i>Obv.</i> : M ANTONINVS AVG ARM PARTH MAX						
251	TR P XXII IMP V COS III Aequitas std.	1	A1*	468	191	3.34/3.15
252	TR P XXII IMP [V COS] III Aequitas std.	1	A1*	468	191	3.25/3.09

¹⁰⁶ Cf. *RIC* 475(a), but Felicitas does not lean on column.¹⁰⁷ Cf. *BMC* 4, but cornucopiae is under seat, as *BMC* 1.¹⁰⁸ Cf. *RIC* 22–25, but bust cuirassed.

No.	Reverse	Bag	Bust	BMC	RIC	Weight (g)
<i>Obv.: M ANTONINVS AVG TR P XXIII</i>						
253	FELICITAS AVG COS III	1	A1*	490	203	3.35/3.26
254	LIBERAL AVG V COS III	1	A1*	492–493 var.	206	3.70/3.61
<i>Obv.: IMP M ANTONINVS AVG TR P XXV</i>						
255	COS III Jupiter	2	A1*	545	228	3.04/2.97
<i>Obv.: M ANTONINVS AVG TR P XXVI</i>						
256	IMP VI COS III Roma	2	A1*	557	259	3.05/2.95
<i>Obv.: M ANTONINVS AVG GERM SARM</i>						
257	TR P XXXI IMP VIII COS III P P / DE GERM	2	A1*	738	363	3.58/3.50

DIVUS ANTONINUS PIUS (8)

<i>Obv.: DIVVS ANTONINVS</i>						
258	CONSECRATIO eagle stg. r. on bar	2	A1+	43	429 corr. ¹⁰⁹	3.36/3.39
259	CONSECRATIO as 258	1	A1+	42	429 corr.	3.35/3.25
260	CONSECRATIO eagle stg. r. on garlanded altar	1	A1+	48	431	3.37/3.22
261	CONSECRATIO as 260	2	A1+	48	431	3.31/3.21
262	CONSECRATIO as 260	1	A1+	48	431	3.30/3.21
263	CONSECRATIO funeral pyre	1	A1+	58	436	3.44/3.32
264	DIVO PIO square altar	1	A1+	75	441	3.41/3.34
265	DIVO PIO as 264	2	A3+	76–77 var.	441a	3.59/3.54

LUCIUS VERUS (10)

<i>Obv.: IMP CAES L AVREL VERVS AVG</i>						
266	COS II clasped hands	1	A1+	30+ var.	458 var. ¹¹⁰	3.34/3.23
<i>Obv.: IMP L AVREL VERVS AVG</i>						
267	PROV DEOR TR P II COS II	2	B2+	205	482 var. ¹¹¹	3.35/3.26
<i>Obv.: L VERVS AVG ARMENIACVS</i>						
268	TR P IIII IMP II COS II Mars	1	B2*	290 var.	514	3.29/3.21
269	TR P IIII IMP II COS II Mars	1	A1+	282 var.	515	3.39/3.32
<i>Obv.: L VERVS AVG ARM PARTH MAX</i>						
270	TR P V IMP III COS II Parthian	2	A1*	386	540	3.39/3.21
271	TR P VI IMP IIII COS II / PAX	1	A1*	428	561	3.43/3.34
272	TR P VII IMP IIII COS III Aequitas stg.	2	A1*	447 var.	576	3.30/3.27
273	TR P VIII IMP IIII COS III Aequitas	1	A1*	472	578	3.42/3.35
274	TR P VIII [IMP] V COS III Victory	1	A1*	483	589	3.61/3.44
275	TR P VIII IMP V COS III Aequitas std.	2	A1*	482	595	3.32/3.22

DIVUS LUCIUS VERUS (1)

<i>Obv.: DIVVS VERVS</i>						
276*	CONSECRATIO eagle	1	A1+	503	596a corr. ¹¹²	4.07/4.00

MARCUS AURELIUS FOR COMMODUS (3)

<i>Obv.: COMMODO CAES AVG FIL GERM SARM</i>						
277	DE SARMATIS	2	C2+	643	609	3.52/3.42
<i>Obv.: L AVREL COMMODVS AVG</i>						
278	TR P IIII IMP III COS II P P Fortuna	2	A1*	797	662	2.95/2.85
279	TR P IIII IMP III COS II P P Victory std.	1	A1*	803	666	3.15/3.05

MARCUS AURELIUS FOR FAUSTINA II (8)

<i>Obv.: FAVSTINA AVGVSTA</i>						
280	HILARITAS	1	E1*	100	686	3.37/3.27
281	IVNO Juno stg.	1	E1*	194	688	3.59/3.47
282	IVNONI REGINAE Juno stg.	1	E1*, with pearls	118	696	3.53/3.43
283	IVNONI REGINAE Juno stg.	1	E1*, with pearls	118	696	3.52/3.31
284	SAECVLI FELICIT no stars	2	E2*	139	712	3.46/3.37

¹⁰⁹ RIC does not mention that eagle stands on bar.

¹¹⁰ Cf. BMC 30+, RIC 458, but bust not draped or cuirassed.

¹¹¹ Cf. RIC 482, but bust cuirassed.

¹¹² RIC does not mention that eagle stands on bar.

No.	Reverse	Bag	Bust	BMC	RIC	Weight (g)
285	SAECVLI FELICIT no stars	2	E2*	139	712	3.44/3.35
286	SALVS Salus std.	1	E2*	148	714	3.38/3.28
287	VENVS FELIX Venus holding Victory and sceptre	2	E1*	169–170 var.	731	3.54/3.48

DIVA FAUSTINA II (3)

<i>Obv.</i> : DIVA FAVSTINA PIA						
288	CONSECRATIO peacock stg. r.	2	E1*	714 var.	744	3.50/3.41
289	CONSECRATIO peacock stg. r.	1	E1*	716	744	3.28/3.16
290	CONSECRATIO altar	2	E1*	725–727 var.	746	3.10/3.03

LUCILLA (4)

<i>Obv.</i> : LVCILLA AVGVSTA						
291	CONCORDIA Concordia std., holding patera and cornucopiae	1	E1*	333	759	3.10/3.03
<i>Obv.</i> : LVCILLAE AVG ANTONINI AVG F						
292	VENVS	1	E1*	322	784	3.48/3.39
<i>Obv.</i> : LVCILLA AVGVSTA						
293	VENVS VICTRIX no helmet under shield	2	E1*	353–355 var.	786	3.04/2.95
<i>Obv.</i> : LVCILLAE AVG ANTONINI AVG F						
294	VESTA Vesta holding simulum and palladium	2	E1*	325	788	3.72/3.65

COMMODUS (11)

<i>Obv.</i> : M COMMODVS ANTONINVS AVG						
295	TR P VI IMP IIII COS III P P Roma std. l.	1	A1*	55	12	2.83/2.69
296	TR P VI IMP IIII COS III P P Felicitas	2	A1*	61	15 (legend A)	2.66/2.59
297	TR P VI IMP IIII COS III P P Pax holding branch and cornucopiae	1	A1*	63	17	2.75/2.66
298	LIB AVG V TR P VII IMP IIII COS III P P	2	A1*	72	36 (legend A)	3.22/3.12
<i>Obv.</i> : M COMMODVS ANTON AVG PIVS						
299*	P M TR P VIII IMP VI COS IIII P P Fides	1	A1*	123	75	3.67/3.57
300	TR P VIII IMP VI COS IIII P P Aequitas	2	A1*	133	83	2.82/2.66
<i>Obv.</i> : M COMM ANT P FEL AVG BRIT						
301	P M TR P XII IMP VIII COS V P P Felicitas	2	A1*	219	143	3.51/3.38
302	AVCT PIET P M TR P XII IMP VIII COS V P P	2	A1*	207	146	2.90/2.83
303	P M T[R P XIII I]MP VIII COS V P P Aequitas	2	A1*	242 var.	164	2.81/2.73
304	P M TR P XIII IMP VIII COS V P P Salus	2	A1*	250A	169	2.65/2.58
<i>Obv.</i> : M COMM ANT P FEL AVG BRIT P P						
305	IOV IVVEN P M TR P XIII COS V DES VI	2	A1*	264	187	3.45/3.24

DIVUS MARCUS AURELIUS (1)

<i>Obv.</i> : DIVVS M ANTONINVS PIVS						
306*	CONSECRATIO eagle stg. r. on thunderbolt	2	A1+	23 var.	269	2.94/2.88

CRISPINA (3)

<i>Obv.</i> : CRISPINA AVGVSTA						
307	CONCORDIA clasped hands	2	E1*	37–38 var.	279 (legend B)	3.00/2.93
308	IVNO with peacock	2	E1*	42	283	3.21/3.14
309	VENVS	1	E1*	44	286a	2.77/2.65

PERTINAX (1)

<i>Obv.</i> : IMP CAES P HELV PERTIN A[VG]						
310*	AEQVIT AVG TR P COS II	1	A1*	15	1	3.37/3.25

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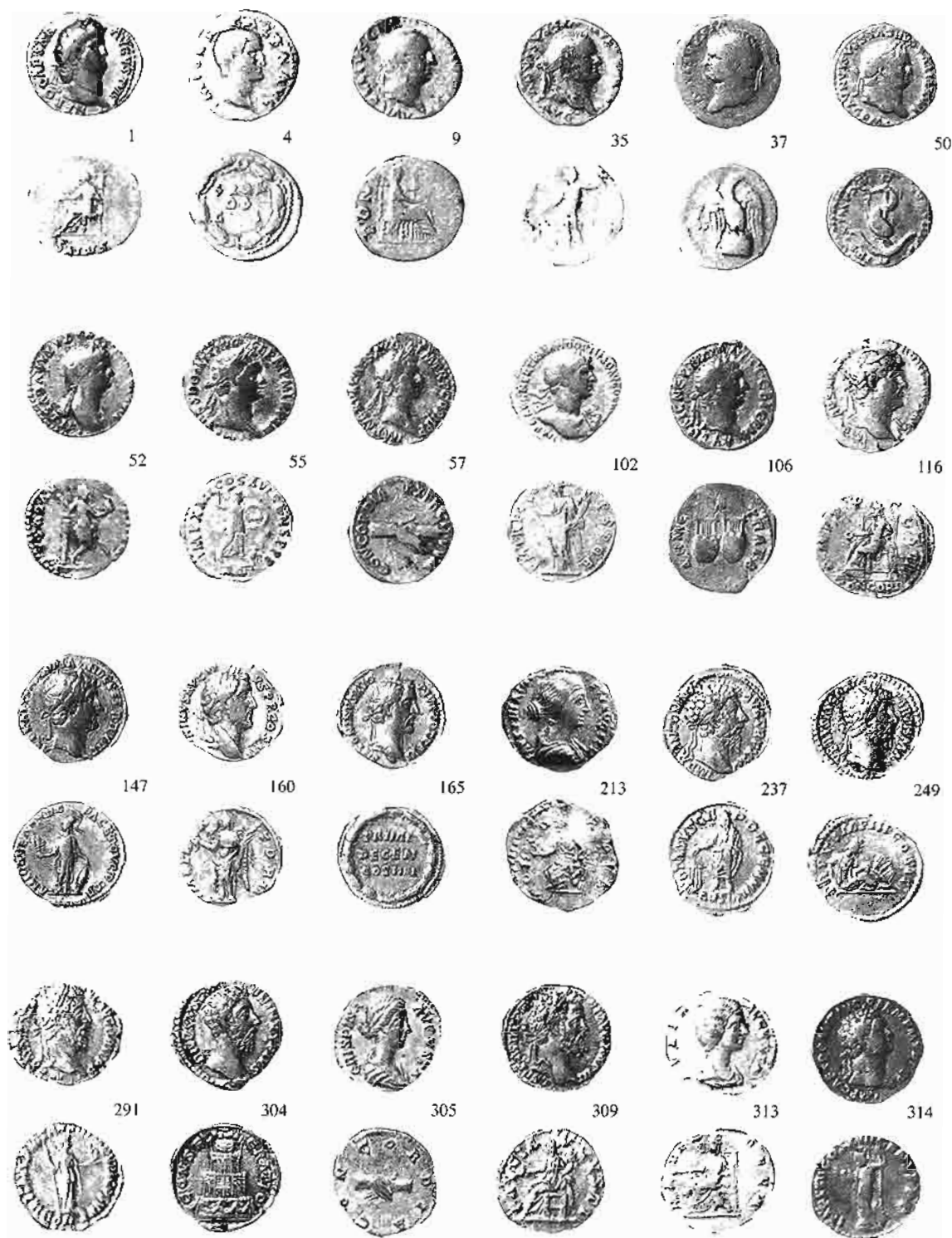
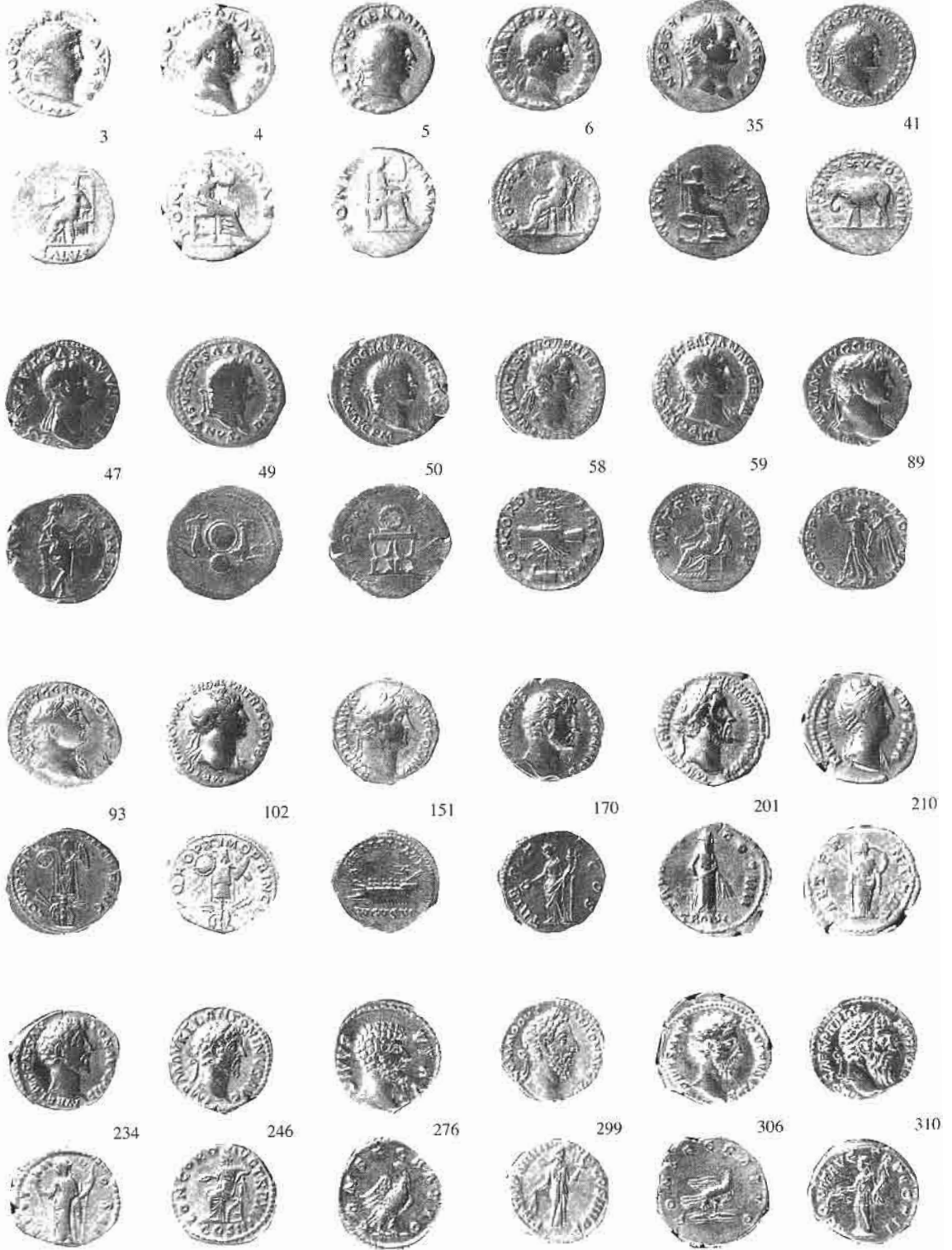


PLATE 2



THE ROGIET HOARD AND THE COINAGE OF ALLECTUS

EDWARD BESLY

Introduction

THE three-and-a-half centuries of Roman rule in Britain have left an extensive legacy, not least in the form of coinage. The system of coinage introduced under Augustus (27 BC–AD 14) – gold aurei, silver denarii and a range of copper alloy denominations – provided the money used in the province for over two hundred years until its final collapse in debasement and inflation around AD 270. There followed a quarter of a century in which a partial reform by the emperor Aurelian (270–5) appears to have had relatively little impact in Britain: hoards and individual finds point to continued circulation of the basest ‘radiates’ (double-denarii)¹ of the recently-suppressed ‘Romano-Gallic’ state (260–74), contemporary issues of legitimate emperors such as Gallienus (260–8) and Claudius II (268–70) and widespread production of unofficial imitations, notably of coins of the Gallic usurpers Victorinus (269–71) and Tetricus I and II (271–4); with gold and silver nowhere to be seen. Around 286–7, Britain and parts of northern Gaul became the scene of another usurpation, by the fleet commander Carausius, who had fallen out with the legitimate emperors Diocletian and Maximian. Carausius was in turn murdered and succeeded by his minister Allectus, in 293. Carausius issued the first fine-silver denarii for nearly a century and both he and Allectus produced gold coinage, the latter apparently in some quantity. At the everyday level, both issued billon coinage on the pattern of Aurelian’s reformed issues (these are known today as aureliani); the numerous British hoards of the time, however, are mostly dominated by the debased ‘Gallic’ issues. The ‘British’ state was reincorporated into the Empire in 295 or 296. In the meantime, in 294–5, Diocletian undertook a fundamental reform, introducing a uniform coinage empire-wide that set the pattern for the fourth century. After reconquest, the coinage of Carausius and Allectus was suppressed and the new currency imposed in Britain.

In the absence of reliable historical evidence for the ‘British’ empire of Carausius and Allectus, interpretation of its coinage has assumed considerable significance.² Understanding of this coinage has unfortunately been hampered by the rarity of well-preserved specimens and hoard groups and some published work has been highly speculative, from the time of Stukeley, in the eighteenth century, to the present. In September 1998, however, an unusual and significant hoard dating from the reign of Allectus was found in south-east Wales and this provides a rare opportunity to examine a well-preserved sample of one element of the coinage of the ‘British’ empire – the Q-radiates, or ‘quinarii’ of Allectus. The purpose of this paper is to place on record this remarkable assemblage and its context in the monetary circulation of the north-western part of the Empire; new evidence on the minting of aureliani; and to discuss the Q-radiates of Allectus and their place in Romano-British currency on the eve of reconquest and monetary reform.

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¹ The term ‘radiate’ is descriptive, from the rayed crown of the emperor’s effigy that distinguished this double-denomination from single denarii, which bore laureate or bare-headed portraits. ‘Radiates’ of the empresses in fact depict a crescent behind the portrait bust.

² See Casey 1994, Chapters 5, 6, 10 and Shiel 1977; see now also Williams 2004.

In terms of design and production, the coinage of the later third century lacks in general the quality of that from earlier imperial periods, though amongst the aureliani are to be found some very handsome specimens. However, the rapid turnover of the 'soldier-emperors' of the third century, the debasements and attempted reforms of the coinage and the complications of several significant usurpations have given the Rogiet deposit an unusually varied composition amongst Romano-British coin hoards. Its forty-year span covers coins from eighteen reigns, in the names of twenty-six emperors or members of their families, with over 1,050 individual varieties.

THE HOARD AND ITS CONTEXT

Discovery

The hoard was discovered on 10 September 1998 by Colin Roberts, who was using a metal detector on farmland between Llanfihangel Rogiet and Rogiet (ST 4587), approximately 2 km west of Caldicot, Monmouthshire.³ The find was promptly reported to the National Museum of Wales (NMW) and to HM Coroner for Gwent, as required by the Treasure Act 1996, which had come into force in England and Wales on 24 September 1997, replacing the former common law of Treasure Trove. The site was visited on 11 September by staff of NMW and the Glamorgan-Gwent Archaeological Trust to record the findspot and take delivery of the coins. The hoard, which at this stage numbered 3,778 coins, was declared treasure at an inquest in Newport on 10 December 1998 and was acquired in May 1999 by NMW (accession number 99.31H). It transpired subsequently that small numbers of coins had been found at the site for some years previously and the total number of coins certainly attributable to the deposit now stands at 3,813.⁴

Under previous treasure trove practice, the Rogiet hoard would have received no legal protection, since it consists of copper alloy coins containing very little precious metal. The hoard can claim a special place in the history of treasure law and practice in England and Wales as the first significant hoard of base metal coins to be declared treasure under the terms of the 1996 Act.⁵

Archaeological Context

The hoard was found by metal detecting on recently-seeded grassland, in a field that had been under cultivation for many years. According to the finder, the first coins were located in plough soil and the bulk of the hoard at a depth between 14 and 20 inches (0.35–0.50 m). As examined on 11 September 1998, the find spot comprised a roughly oval hole 0.82 m by 0.34 m; some 0.3 m of plough soil overlay a subsoil c.0.2 m deep which in turn rested on an orange/red sandy gravel with some larger rounded pebbles in it. No trace survived of the original depositor's cut, but this appears not to have penetrated the natural gravel. There was no sign of a container, but the finder reported several small iron nails which, with the general shape of his excavation, might suggest that the coins had been deposited in a rectangular wooden box, though this is not certain. No traces of mineralised fabric were observed on any of the coins. The hole also yielded a few sherds of worn pottery; pottery and stone scatters and a number of late third- and fourth-century coins have been found elsewhere in the field.

The hoard site is near the shore of the Severn Estuary on a slightly elevated area of land (c.10 m O.D.) between the Caldicot Levels to the south and hills rising to 82 m O.D. to the north. (In terms of the modern landscape this lies between the M4 motorway/Great Western Railway to the south and the M48 to the north.) Excavations in 1996 in the adjacent field to the east, ahead of residential development, located a Roman building in stone, of probable second-century date.⁶ About 3 km to the north, over the hills, lies the important Roman town and 'tribal capital' of

³ 'Rogiet' is pronounced with a hard G: 'Rog – it'.

⁴ Of the supplementary coins, six have subsequently been acquired by NMW (2000.7H/1–5; 2002.14H).

⁵ See *Treasure Annual Report 1998–1999* (London, 2000), pp. 121–2, no. 306; a preliminary report, which shared the title of the present paper, was delivered to the British Numismatic Society's meeting on 25 June 2002.

⁶ Marvell 1996.

Caerwent (*Venta Silurum*); to the west, just under 12 km away, is the legionary fortress of *Isca* at Caerleon. The 'shore fort' at Cardiff, further to the west, was built towards the end of the third century (Fig. 1).

Composition

The Rogiet hoard comprises 3,813 coins of the middle and later years of the third century AD, summarised by reign and by mint in Table 1. These are, essentially, of copper alloy with small added percentages of silver and many, on cleaning, proved to retain the silvered surfaces that were applied to these issues. The coins cover the period from AD 253 to the reign of the 'British' usurper Allectus. The latest coins of the Central (official) emperors are two of Maximian of AD 293 (954–5) and there are three aureliani (1006–8) of Allectus, who took power in Britain the same year. The question of the hoard's date revolves, however, around the interpretation of the 757 'Q-radiates', or 'quinarii' of Allectus: they will be considered in detail below.

In broad terms, the hoard contains three significant components: unreformed radiates of 253–c.274 (i.e. including early coins of Aurelian) and their Romano-Gallic counterparts of 260–74; aureliani from Aurelian's reform through to Diocletian and Maximian, together with small numbers of similar coins of Carausius and Allectus; and the Q-radiates of Allectus. Several features stand out immediately: the large quantity of aureliani, which are usually present in British hoards only in very small numbers; the relatively small group of coins of 260–74 and the virtual absence of coins of the Tetrici; and the Allectan Q-radiates, the first significant group of these enigmatic coins to become available for study in recent times. The great Blackmoor hoard of 1873 included fewer than 80 (less than 0.3 per cent of the deposit), while the Old Ford (1866) hoard – seemingly a potful of Q-radiates – was dispersed without a proper record.⁷

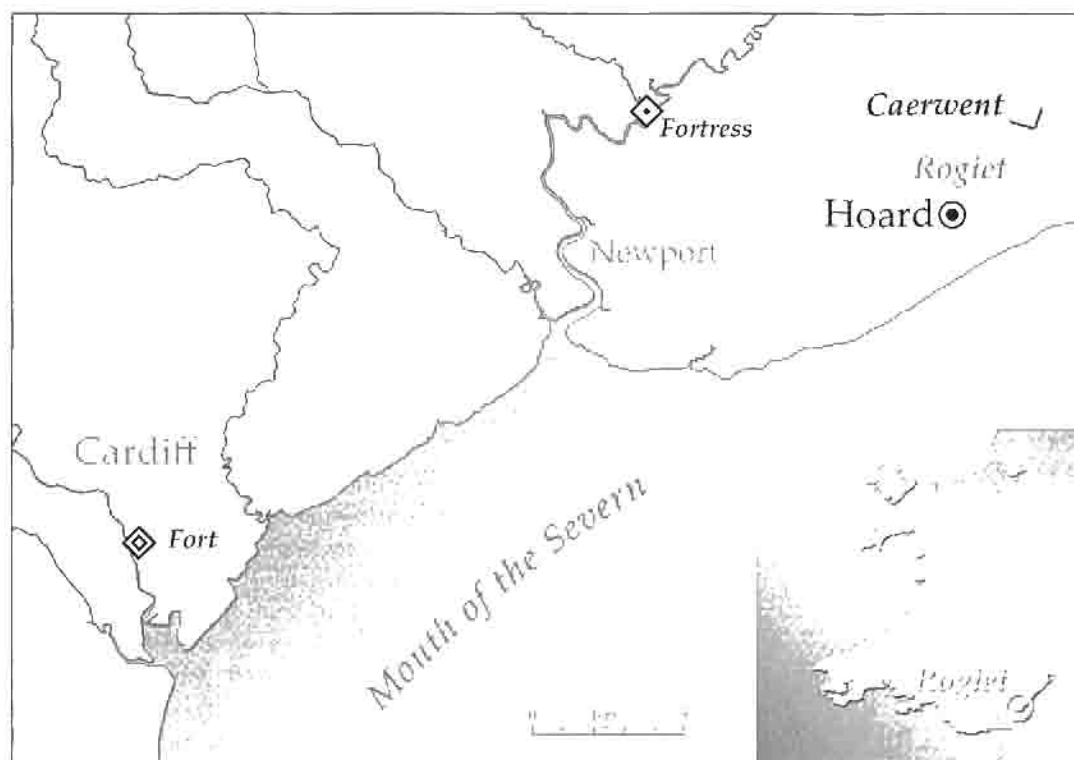


Fig. 1 The location of the Rogiet hoard (NMW/Jackie Chadwick).

⁷ To save repetition, general references to hoard publications are given in a separate Bibliography (pp. 144–5), which for British hoards also gives the counties in which they were found.

Typically, late third-century Romano-British hoards (and many from Gaul) consist of large numbers of the base and 'unreformed' radiates of 260–74; two-thirds or more of these are usually coins of the Romano-Gallic emperors Victorinus (269–71) and Tetricus I and II (271–4), with the remaining third mostly of Gallienus (260–8) and Claudius II (268–70). These are supplemented by varying numbers, usually small, of the reformed aureliani of the 270s and 280s and by irregular issues ('barbarous radiates').⁸ The picture is less clear-cut during the British Empire (c.287–95/6): Bland and Burnett, publishing the Normanby hoard, identified four categories of hoard during this period, consisting of 'reformed' coins (which include mint-signed issues of Carausius and Allectus) or 'unreformed' coins (including early Carausian issues, as well as the Q-radiates of Allectus), each with or without pre-Carausian issues. The presence or absence of a type of coin, it was argued, could be seen in terms of different 'monetary categories (= denominations?)'.⁹

Only one other British find is known that contains large numbers of aureliani, the Gloucester (Cross) hoard, found in 1960 and still unpublished. This comprised over 15,500 coins closing, like Rogiet, with Allectus; but, unlike Rogiet, the hoard virtually excludes coins of 260–74. Another hoard, from Linchmere, consists of 812 coins, two-thirds of them mint-signed issues of Carausius, the remainder almost entirely aureliani. These two hoards form the first category, 'reformed coins, including pre-Carausian'. The second, 'reformed coins, none before Carausius', is exemplified by Burton Latimer and Colchester. The third and fourth categories, 'unreformed coins', include hoards such as Normanby, Blackmoor and, in Wales, Erw-Hên ('including pre-Carausian'); and Croydon and Old Ford ('none before Carausius').

TABLE 2. Percentage compositions of selected 'British Empire' hoards (modified from Bland and Burnett (1988), Table 3)

	<i>Normanby</i>	<i>Erw-Hên</i>	<i>Croydon</i>	<i>Linchmere</i>	<i>Blackmoor</i>	<i>B. Latimer</i>	<i>Colchester</i>	<i>E Harnham</i>	<i>Gloucester</i>	<i>Rogiet</i>
<i>Gallienus-Quintillus</i>	25.6	26.2	2.3	–	27.8	–	3.0	82.6	0.3	3.2
<i>Postumus-Tetrici</i>	69.2	70.2	5.7	0.4	66.7	0.1	5.7	0.3	<0.1	2.8
<i>Aurelian-Tetrarchy</i>	0.3	2.0	–	33.7	3.3	–	0.3	15.8	99.2	72.7
<i>Carausius unmarked</i>	0.2	1.3	72.6	4.1	0.8	2.7	1.3	–	0.1	0.1
<i>Carausius marked</i>	0.1	0.1	19.0	61.7	0.6	50.9	32.9	–	0.1	0.4
<i>'Diocletian, Maximian'</i>	–	–	–	–	0.1	0.1	0.6	1.2	0.1	0.2
<i>Allectus aureliani</i>	–	–	–	–	0.1	44.4	41.4	–	0.1	0.1
<i>Allectus Q-radiates</i>	–	–	–	–	0.2	–	0.7	–	–	19.9
<i>Number of coins</i>	47,912	684	84	812	29,802	108	298	3,705	15,544	3,813
<i>Bland-Burnett category</i>	3	3	4	1	3	2	2	3/L	1/L	

A further complication lies in the hoards which have come to be known as 'legitimist': those where coins of usurpers appear to have been consciously excluded. These hoards appear mainly to be western: Gloucester, for instance, includes a single coin of Victorinus and only 38 coins of Carausius (many in the names of Diocletian and Maximian) and Allectus, in all around 0.25% of the hoard; East Harnham avoids Carausius altogether, while including some of his 'Diocletian' and 'Maximian' issues. In Bland and Burnett's view, 'legitimist' hoards can form sub-classes, perhaps slightly later, of their four categories of British Empire hoards.

In its composition, therefore, Rogiet appears – uniquely in Britain – to straddle the various categories: it contains both reformed and unreformed coins, pre-Carausian and Carausian coins and Q-radiates in quantity. On the Bland and Burnett model, it may be seen to form a fifth category, consisting of around 1,250 'unreformed' coins (radiates and Q-radiates) – and about 2,560 'reformed' coins (aureliani) from Aurelian to Allectus, though there may have been some blurring of the two categories, based on size, in the mind of the hoard's owner.

A closer look at the 'unreformed' element underlines and expands this view: the unreformed radiates appear to have been carefully selected. Not only are the weights of the pre-270 and Gallic

⁸ Cheesman 1997 summarises and discusses fifty late third century hoards from Britain published since 1981.

⁹ Bland and Burnett 1988, 114–18.

coins generally higher than might be expected (see below), but the worst-debased issues are absent, presumably deliberately excluded or unavailable to the hoarder. Thus there are no coins of Claudius II. Rome issue 3 in the Normanby scheme, the very worst of his issues, though the following issue is present. Coins of Victorinus stop mid-reign at mint I, issue 3 (PAX AVG/INVICTVS) and mint II, issue 4 (VICTORIA AVG); his lighter late issues are avoided. Most striking is the complete absence of the Tetrici, apart from two late coins of Tetricus II, both of good weight. The impression of careful selection is reinforced by the irregular coins: there are only eleven, the majority well silvered copies of Postumus, forming just under 0.3% of the whole deposit. Rogiet may therefore be described as a 'two-denomination' hoard, in which the 'unreformed' element of coins pre-274 shows every sign of having been carefully selected.

Formal evidence for the disposition of the coins within the hoard was lost before it could be examined. However, during the sorting of the hoard forty-five fused clusters (mainly pairs and groups of three, with a few larger groups) were observed and their compositions noted in outline. Of these, twenty-three comprised solely aureliani and a further eight contained aureliani and coins of Aurelian (phase not noted); two comprised pre-274 radiates and seven solely Q-radiates. Five clusters mixed the categories: two paired a pre-274 coin with an aurelianus; three, aureliani and Q-radiates. Of these last, there was one pair and two groups – of three and five coins – with the Q-radiates on the outside. Some segregation of categories within the hoard may perhaps be inferred, but this cannot now be proved.

The circulation of aureliani in Britain

The term aurelianus has come into use in recent years to describe the reformed radiates of Aurelian and his successors, first issued around 274, by analogy with the name antoninianus applied to the radiate double-denarii originally introduced by Caracalla (Antoninus) in 215.¹⁰ These demonstrate improved weights and better workmanship than the highly debased issues of radiates down to 274; many, though by no means all, bear in the reverse exergue the formula 'XXI' (or the Greek equivalent, KA), taken to refer to the metal, which equates to one part of silver to twenty of alloy. Other control-marks identify production units (*officinae*), issues and sometimes the mint. At the time of the reform, smaller laureate pieces ('denarii') were also issued in some quantity at Rome, though this initiative was not sustained in subsequent reigns, except in very small numbers.¹¹

Aureliani formed the basis of everyday currency for around twenty years, until the Augustan system was finally done away with through Diocletian's reform. Significant hoards of aureliani have been found, notably La Venèra (Italy), Svetozarevo (former Yugoslavia: today Jagodina, Serbia), Maravielle (Var, France), Navis-Mühlen (Austria) and Gloucester. Nevertheless, nearly one quarter of La Venèra comprised issues before 270 (Table 3). Gloucester and Rogiet appear to be atypical, as far as the territory of the former Romano-Gallic Empire is concerned, where numerous hoards have been recorded that consist for the most part of issues of the period 260–74: Gallienus, Claudius II, Victorinus and the Tetrici, with varying but usually small numbers of aureliani.¹² This pattern is paralleled elsewhere, for instance in the Plovdiv hoard (Bulgaria), a hoard of the 280s, in which coins of Gallienus and Claudius account for over 80% of the whole. The 1896 Nieder-Rentgen (Lorraine: now Basse-Rentgen, Moselle, France) hoard, however, strikes a more even balance, with reformed issues comprising around 40% of a deposit of 14,074 coins.

Nevertheless, aureliani did circulate in Britain, albeit generally in small numbers. As well as in hoards, they are found occasionally as isolated single losses and in archaeological excavations. A hoard found at the Wint Hill villa site at Banwell, Somerset, comprised nineteen aureliani and eleven radiates. Most of the supply to Britain (if formal supply there was) came from the Lyon mint, successor to the 'Gallic' mints. In 280, for instance, there was an uncirculated batch of

¹⁰ 'Aurelianus' has also been used, but the shorter and more easily pronounced version appears to have established itself.

¹¹ The coinage also encompassed gold and copper alloy denominations, which fall outside the scope of this paper.

¹² See Bland and Burnett 1988, Table 2.

TABLE 3. Examples of hoards principally composed of aureliani (percentage compositions)

	<i>Maravielle</i>	<i>Svetozarevo</i>	<i>La Venèra</i> *	<i>Navis-Mühlen</i>	<i>Gloucester</i> **
Pre-270 and Gallic	0.9	0.7	24.2	0.1	0.4
Aurelian and Severina	38.0	35.5	23.9	7.1	17.2
Tacitus and Florian	10.0	8.7	6.5	2.8	25.0
Probus	39.8	51.8	28.5	81.0	42.4
Carus and family	11.2	3.3	9.6	3.0	4.8
Diocletian and Maximian	0.2	0.1	7.3	6.0	9.8
Other	-	-	<0.1	0.1	0.2
Total	1,745	1,973	46,372	1,745	15,544

*Figures from Milani; ** Gloucester figures provisional

Tacitus from Lyon in the hands of the owner of the Kirmington hoard. There is also evidence a little later for separation of aureliani from other radiates in the Tattershall Thorpe hoard (c.281); and later still, in Penard (c.290). With time, coins of more distant mints appeared (see for instance the case of Probus, Table 4), suggesting a gradual mixing of coinage through various transactions, leading to a similar pattern to that observed later for the Tetrarchic nummi. With the issuing of aureliani by Carausius and Allectus, their use finally seems to have become more important in Britain – just in time for the monetary system to be completely changed by Diocletian.

TABLE 4. Coins of Probus in British hoards, c.276–86

<i>Terminus</i>	<i>Lyon</i>	<i>Ticinum</i>	<i>Rome</i>	<i>Siscia</i>	<i>Total</i>	<i>Hoards</i>
276–7	15	1	–	–	16	Riby, Bowcombe
%	93.8	6.2				
280	32	4	1	–	37	Chalgrave, Hollingbourne, Kirmington
%	86.4	10.8	2.7			
281	146	12	13	–	171	Chalfont, Child's Ercall, Kirkby, Minster, Tattershall Thorpe
%	85.3	7.0	7.6			
282	168	17	11	3	199	Appleshaw, Coleby, Knaresborough, Maltby
%	84.4	8.5	5.5	1.5		
284–6	55	16	17	3	91	Banwell, Monkton Farleigh, Much Wenlock
%	60.4	17.6	18.7	3.3		

Table 5 summarises the occurrence of aureliani in British hoards. Apart from the massive Gloucester deposit, Rogiet and Blackmoor are the only British finds to contain significant numbers (though in Blackmoor these still represent less than four per cent of the whole). Twenty-four other hoards collectively provide a sample somewhat smaller than that from Rogiet alone.

TABLE 5. Central Empire coins of 274–94 in British hoards

	<i>Rogiet</i>	%	<i>Gloucester</i>	%	<i>Blackmoor</i>	%	<i>24 others</i> *	%
<i>Aurelian and Severina</i>	103	4.1	707	5.2	34	4.8	74	3.7
<i>Tacitus</i>	649	25.7	3,692	27.4	163	23.1	699	34.7
<i>Florian</i>	40	1.6	200	1.5	10	1.4	28	1.4
<i>Probus</i>	1,339	53.1	6,586	48.9	341	48.3	947	47.1
<i>Carus and family</i>	117	4.6	753	4.3	44	6.2	59	2.9
<i>Diocletian and Maximian</i>	276	10.9	1,531	11.4	113	16.0	205	10.2
Totals	2,524†		13,469		705		2,012	

*Appleshaw, Banwell, Bath, Bowcombe, Chalfont, Chalgrave, Childs Ercall, Coleby, E. Harnham, Gilmorton, Hollingbourne, Kirkby, Knaresborough, Lacock, Linchmere, Maltby, Minster, Monkton Farleigh, Much Wenlock, Normanby, Penard, Riby, Somerset, Tattershall Thorpe.

†Total excludes 17 coins in uncleaned clusters.

Distribution by mints within the individual reigns to 293 is set out in Table 6, together with summaries of two significant hoards from different areas in Gaul – the north-east (Nieder-Rentgen) and south (Maravielle). Lyon, Rome and Ticinum (in succession to Milan) are well represented, but post-reform coins of Siscia are severely reduced as a proportion of the whole, compared with Aurelian's pre-reform issues.¹³ This appears to be typical for British finds: a small but reasonably consistent trickle of issues from Siscia and more easterly mints is observed here and similarly in hoards of nummi deposited after Diocletian's reform at the end of the century, by which time new mints at London and Trier had joined Lyon as the principal sources of supply.¹⁴

TABLE 6. Mint distribution by reign in selected British and Gallic hoards (percentages)

	<i>Lyon</i>	<i>Rome</i>	<i>Ticinum</i>	<i>Siscia</i>	<i>Serdica</i>	<i>Cyzicus</i>	<i>Antioch</i>	<i>Total</i>
Aurelian								
Gloucester	6.6	25.3	49.9	10.3	2.1	5.4	0.3	707
Rogiet	5.8	25.2	53.4	12.6	1.0	1.9	–	103
25 British	9.3	22.4	56.1	10.3	0.9	0.9	–	107
N-Rentgen	1.2	43.6	30.0	17.2	4.3	3.7	–	163
Maravielle	0.7	35.6	22.6	24.7	8.9	6.8	–	146
Tacitus								
Gloucester	75.1	13.2	10.4	0.9	0.1	0.2	0.1	3691
Rogiet	74.9	13.9	10.2	0.6	0.5	–	–	649
25 British	83.7	10.1	5.8	0.3	–	–	–	859
N-Rentgen	49.8	30.7	13.0	5.0	1.1	0.4	–	261
Maravielle	20.4	46.5	19.0	12.7	0.7	0.7	–	142
Florian								
Gloucester	74.0	14.5	4.5	4.5	1.0	1.5	–	200
Rogiet	77.5	12.5	–	10.0	–	–	–	40
25 British	76.3	13.2	2.6	5.3	–	2.6	–	38
N-Rentgen	27.0	54.1	13.5	2.7	–	2.7	–	37
Maravielle	12.1	54.5	9.1	18.2	–	6.1	–	33
Probus								
Gloucester	70.0	14.5	11.8	3.2	0.2	0.3	<0.1	6584
Rogiet	63.9	14.9	17.5	3.3	0.1	0.2	<0.1	1339
25 British	67.9	13.2	13.2	5.2	–	0.4	–	1286
N-Rentgen	43.7	26.1	18.6	10.0	0.9	0.7	0.1	1828
Maravielle	10.7	49.6	19.3	18.9	0.4	1.2	–	694
Carus etc								
Gloucester	41.3	25.7	30.9	1.1	–	0.1	0.8	750
Rogiet	43.6	24.8	30.8	0.9	–	–	–	117
10 British	28.2	36.9	34.0	–	–	–	1.0	103
N-Rentgen	64.8	22.8	11.8	0.6	–	–	–	772
Maravielle	23.6	45.6	29.2	1.5	–	–	–	195
Diocletian and Maximian								
Gloucester	78.6	6.7	14.4	0.3	–	–	<0.1	1530
Rogiet	83.3	1.8	14.9	–	–	–	–	276
10 British	84.3	5.8	9.6	0.3	–	–	–	313
N-Rentgen	92.9	3.3	3.7	0.2	–	–	–	2660

(Gloucester figures for Tacitus, Carus and Diocletian and Maximian are provisional)

The contemporary Gloucester and Rogiet groups are on the whole remarkably consistent, though the latter is relatively strong for Ticinum coins of Probus. The comparative British hoards (as Table 5, plus Blackmoor) present a similar general pattern; but since they vary in date over nearly two decades, they differ in detail from Rogiet and Gloucester. Lyon coins of Tacitus are more dominant (even without Kirmington), for instance, but the mint is under-represented for Carus and family. The two Gallic hoards, from very different regions, differ from each other

¹³ The incorrect attribution of a number of Rome coins of Probus to Siscia by *RIC* tended previously to mask this feature.

¹⁴ Besly 2002.

considerably. Maravielle, from the very south of France, has surprisingly few Lyon coins throughout and its relationship to Cisalpine hoards has been remarked upon by Estiot.¹⁵

Many years ago, in discussing the 'clash of the coinages', Mattingly suggested that the aureliani may have been tariffed at more than twice the pre-reform coins.¹⁶ Estiot, however, has suggested that the ratio was 2:1 and this appears to be reasonable.¹⁷ The fact that, at Rome at least, Aurelian seems to have set out to produce significant numbers of a 'denarius' suggests that a functioning two-denomination system was envisaged: the portrait designs and relative weights also support a 2:1 tariff for this species. The plentiful Gallic radiates in Britain and Gaul will have fulfilled the function of the smaller piece and perhaps local preference, as much as any shortfall in official supply, saw to it that aureliani remained a minority in the currency, but readily available to those who wished to use them, for instance in trade or in travelling across the Empire. The significance of the Q-radiates in this picture will be considered below, but if they too are regarded as halves of the aureliani, the latter's numerical 66.5 per cent of the hoard equates to 80.5 per cent of the deposit's value.

The aureliani in their turn served as subsidiary coins to the nummi introduced around 294 by Diocletian's reform. They are found hoarded with the nummi in the early post-reform years and this phenomenon is observed more commonly in Gaul than in Britain. Several of the more important continental hoard groups of aureliani come from such post-reform hoards, for instance Colonne I + II and Troussey.

THE COINS: RADIATES AND AURELIANI

A. The Central and Romano-Gallic Empires to AD 274

The 123 Central Empire coins of 253–70 and 105 Romano-Gallic issues of 260–74 are too few to analyse in any detail except insofar as they bear on the nature of the Rogiet hoard, discussed in part above. They confirm that the hoard has been the subject of careful selection and many are of good weight and/or impressive flan size (see illustrated examples on **Pl. 3**). There is a relatively high proportion of Eastern issues (10 per cent), which were often more impressive in appearance, including one coin of the usurper Macrianus (70),¹⁸ whose issues are rare in Britain. The abrupt cut-off in the coins of Victorinus and the absence of Claudius's third Rome issue have been noted above. The few commemorative 'Divus Claudius' issues of c.270 are, unusually, all regular issues.

Few individual issues are sufficiently well represented for a statistical comparison with those in other hoards but where Rogiet can be compared, a consistent picture emerges (Table 7).

TABLE 7. Rogiet average weights, c.265–74, compared with Cunetio and Normanby hoards

<i>Reign</i>	<i>Issue</i>	Rogiet		Cunetio Av. wt (g)	Normanby Av. wt (g)
		number	Av. wt (g)		
Gallienus	Rome, 5	17	3.41	2.65	2.47
Claudius II	Rome, 2	10	3.52	2.79	2.73
	Rome, 4	7	3.22	2.79	2.59
Quintillus	Rome	8	3.15	2.70	2.70
Postumus	Mint I, 6	13	3.13	2.93	2.93
Victorinus	Mint I, 3b	23	3.01	2.84	2.83
	Mint II, 2	20	3.15	2.83	2.88

In every case the Rogiet sample, though admittedly very small, is of higher average weight, by between 6 and 29%, than the Cunetio figure. The fifteen coins of this period in the Maravielle hoard, assembled by around 285, seem similarly to have been selected for their good weight: and

¹⁵ Estiot 1983.

¹⁶ Mattingly 1951.

¹⁷ Estiot 1983, 37–9.

¹⁸ See 'Catalogue conventions', on p. 84.

the 54 coins of Gallienus, Salonina and Claudius II in the Gloucester hoard seem to demonstrate the same phenomenon: eighteen Rome coins of Claudius II, issue 2, average 3.68 g, for instance.¹⁹

Few coins in this portion of the hoard are of numismatic note, though attention may be drawn to a minor variation in the reverse design of no. 119. Postumus series 4a, SALVS AVG. Unusually, Laelian outnumbers Marius, though in a very small sample.

The 352 coins of Aurelian's reign form the first issues to be represented substantially in the Rogiet hoard. Around seventy per cent predate the 'XXI' reform of 274, but by then Aurelian had already improved the general appearance of the radiate issues. This is reflected in the considerable number of pre-reform coins from Rome, Milan and Siscia, though here too the earliest issues of these mints are all but absent and the few that are in the hoard are mostly of very good weights.

B. Aurelian and his successors: the Central Empire c.274–93

The 2,541 Central Empire coins that date from Aurelian's reform to the *decennalia* of Diocletian and Maximian form exactly two-thirds, numerically, of the Rogiet hoard, a group exceeded in Britain only by that in the great Gloucester (1960) hoard, which contained just under 13,500 comparable coins. They have been catalogued using as basic reference volume V of *The Roman Imperial Coinage* (RIC) and arranged on the basis of more recent analytical studies of specific reigns and mints. Nearly sixty per cent come from Lyon (1,660 coins) and these are listed following Bastien.²⁰ For other mints, one is now fortunate to be able to use the work of Estiot (Aurelian, Tacitus, Florian) and Gricourt (Carus *et sui*, Diocletian and Maximian) on the large La Venèra hoard from northern Italy.²¹ Only Probus lacks a modern published account, other than for the Lyon mint. For this reign, Pink's 'Aufbau' is followed (apart from Lyon), with some modification which takes into account the 6,586 coins of his reign in the Gloucester hoard, which have been studied in parallel with the Rogiet sample.²²

Lyon

The Lyon mint functioned throughout this period with four *officinae*; reverse designs are usually specific to these production units, though there are exceptions (for instance MARS VICTOR as a major type in two *officinae* under Probus). Issues of Aurelian and Severina, Tacitus and Florian amount to just over 500 coins. There are several rarities, for instance two specimens of B.63α (328) in issue 3 of Tacitus, and two new varieties in his seventh issue, both the result of an engraving error (352 and 358, see below). Such errors appear from time to time in the Lyon series and have been discussed in the second *Supplément* to Bastien's work. The pattern for Tacitus of alternating large and small issues, observed elsewhere (e.g. Blackmoor, Tattershall Thorpe, La Venèra) is also apparent here.

The 856 Lyon coins of Probus in Rogiet and the 4,609 from the Gloucester hoard provide the best single-source samples for this reign. Many 'type specimens' cited by Bastien as 'BM' derive in fact from Gloucester: the British Museum acquired in 1962 a sample of 1,433 coins from this large hoard, the remainder of which went to Gloucester Museum. Bastien therefore had access to less than one-tenth of the Gloucester coins (though the British Museum had attempted to acquire examples of all varieties). Study of the Gloucester coins of Probus, towards a proposed new catalogue, in parallel with those in Rogiet, gives perhaps a better idea of the relative numbers and significance of the various issues than is possible on the basis of museum collections (Table 8).

The Lyon coins of Probus are here catalogued according to the nine sequential issues identified by Bastien. The first of these comprises distinctive coins with the 'long' obverse IMP C M AVR PROBUS AVG and a Florian-like portrait, using the reverse types of Florian's last issue (e.g.

¹⁹ Information taken from draft list by R. Abdy.

²⁰ Bastien 1972, 1976; Bastien, Amandry and Gautier 1989; Amandry, Estiot and Gautier 2003.

²¹ Estiot 1987, 1995; Gricourt 2000a. Estiot's (2004) magnificent catalogue of coins in the Bibliothèque nationale de France was not published in time to be useful in listing Rogiet. However, a few catalogue footnotes refer to this, as 'BnF'.

²² Pink 1949

TABLE 8. Distribution of Lyon issues of Probus in hoards and collections

Issue	Rogiet	%	Gloucester	%	5 French*	%	Bastien†	%
1	19	2.2	100	2.2	10	2.0	69	3.0
2-3	163	19.0	908	19.7	64	12.9	354	15.3
4	240	28.0	1268	27.5	117	23.5	298	12.9
5	15	1.8	56	1.2	13	2.6	259	11.2
6	128	15.0	584	12.7	74	14.9	383	16.5
7	7	0.8	31	0.7	20	4.0	106	4.6
8	40	4.7	246	5.3	97	19.5	336	14.5
9	244	28.5	1414	30.7	102	20.5	512	22.1
Totals	856		4607		497		2317	

*Authieux, Colonne, Maravielle, Ste-Pallaye, Troussey.

†Bastien, as n. 20.

447-9).²³ Issue 2 introduces new reverses, some of which then continue through issue 3 to issue 4. Those coins of issues 2 and 3 that share the same reverse types are distinguished from each other by the evolution of the emperor's effigy into one that is distinctively 'Probus' (e.g. 459/1, 463/9). Issue 4 comprises coins with a shortened obverse legend, IMP C PROBVS-P-F-AVG.

These 'issues' form a convenient way of listing the coins, but in practice things were probably not so clear-cut. Rogiet and Gloucester provide some new evidence that might suggest a more fluid situation, as the portraits and obverse legends evolved – i.e., as new batches of dies were cut and then put into use. Rogiet has added a new variety to issue 4: no. 464, with reverse ORIENS AVG, in officina I. This coin is a mule between issues 4 and 2. A second type in the same issue, SECVRITAS ORBIS (B.185), is also a 4/2 mule; and this reverse also reappears as a 6/2 mule (B.263, Gloucester hoard). Both of these reverse types have previously been attributed to issue 2, but not issue 3. However, it is apparent that ORIENS AVG certainly continued into issue 3, for there are examples that show the same evolution of the emperor's portrait as the other issue 3 types (e.g., Rogiet 451/5). It is in any case not always easy to distinguish coins of issue 2 from those of issue 3, since this depends upon perception of style where the style is evolving. Is the new mule evidence for this type continuing into issue 4, or should this be regarded simply as an example of the survival of an obsolete reverse die? Alternatively, does this evidence bring the issues closer together in time, even overlapping? (B.176α is another mule, this time with a later reverse, combining the short form TEMPOR FELICI of issue 4 with a 'long' obverse attributable to issue 3.)²⁴ There are portraits on issue 4 dies that are very similar to those of issue 3: did the use of the shorter obverse legends overlap with the longer? In the next large issue (6) both long and short obverse legends are used; this may also have been the case in an evolving issue 2-3-4. In passing, we may note that of the handful of British hoards closing with coins of Probus several end with issue 4, but none earlier, as far as Lyon is concerned.

Down to issue 4, obverse busts are cuirassed, viewed from the front (the sole exception being B.177/179bis, which perhaps belongs to issue 6). In issue 6, the cuirass takes on a new form and draped busts, viewed from the rear, become a significant element. The form of the 'early' cuirass of issues 1-4 is not often clear, since the truncation is almost always cut off short; the cuirass of issue 6 and later coins is clearly a form of chain mail.

A similar duality may be observed on the obverse busts of issue 5, a series of coins with exceptional obverses that Bastien saw as a short, special issue – intended as a *donativum* – around the end of 277; it accounts for over 11 per cent of the aureliani recorded in Bastien's survey. In hoards, however, this issue – like issue 7 – is consistently rare and dwarfed by those either side, though both do appear to be a little more significant in French hoards. The occasion for the issue was no doubt the *Adventus* recorded on its single gold type and on aureliani, both with the

²³ The extended obverse legend including the new emperor's *praenomina* and a portrait resembling his predecessor are found elsewhere in the Roman coinage: see, for instance, the opening issues of the Romano-Gallic emperors Postumus and Victorinus (Besly and Bland 1983, 44, 62).

²⁴ Bastien, Amandry and Gauer 1989, 14-15; Gricourt 1983, 324-5.

ceremonial busts (e.g. 473) and the conventional obverses of issue 4. The reverses are those of issues 4 and 6. Special busts have also been noted in other issues: 6 (B.290α), 7? (B.340β), 8 (B.339–40; 340α; 341) and 9 (B. 372, 272α). The obverse die of B.290α is that of B.239b in issue 5 and this coin has been interpreted as an obverse die re-used in a subsequent issue that otherwise lacked the special busts.²⁵ There is, perhaps, some evidence that other special busts may indeed have been used during issue 6, in that some of the 'issue 5' busts appear to share characteristics of the obverses of issue 6. Most of those with the bust viewed from the front bear a cuirass in the form of a solid breastplate ('1', e.g. 475/1, 478/2), which may be similar to that of issue 4 (see, for instance, 466/1); on others we see the 'chain mail' of issue 6 ('2', e.g. Rogiet 483), with most reverse types associated with both forms. Others, viewed from the rear, are draped (484), or almost always have the 'chain mail' form of cuirass (479) – characteristics of issue 6. The occurrence of these varieties is summarized in Table 9, which combines the coins illustrated in Bastien and supplements with the Rogiet and Gloucester examples.

TABLE 9. Bust types on coins of Lyon, issue 5 (numbers of specimens)

Type	<i>Busts with cuirass type 1</i>		<i>Busts with cuirass type 2</i>		<i>Other busts*</i>
	<i>Front</i>	<i>Rear</i>	<i>Front</i>	<i>Rear</i>	<i>Rear</i>
ADVENTVS I, III, IIII	12	–	–	–	–
TEMPOR FELICI, I	38	2	2	13	9
MARS VICTOR, II	36	–	5	–	12
FIDES MILITVM, III	24	–	–	–	5
MARS VICTOR, III	24	–	1	1	9
ABVNDANTIA AVG, IIII	20	–	–	2	6
VIRTVS AVG, IIII	7	–	6	5	–
Totals	161	2	14	21	41
	163		35		41

*Excluding consular.

While this comparison is only semi-quantitative, it appears to demonstrate that some of the issue 5 coins may have been contemporaneous with those of issue 6. Coins with the first cuirass type are roughly twice as common as the combined total of those with the second and with draped busts viewed from the rear. This in broad terms parallels the relative numbers of coins from issues 4 and 6 in Rogiet, Gloucester and other smaller hoards. The one type where specimens with the second version of the cuirass outnumber those with the first is *VIRTVS AVG* in officina IIII – a type that postdates issue 4. The relative numbers suggest an issue using special obverses during the course of issue 4, with perhaps a second such issue during the course of issue 6. Coins with special busts may have been produced fairly continuously, but usually in small numbers, from the time of issue 4 onwards. This pattern appears to parallel that at Ticinum (see below).

One minor adjustment to the corpus of Lyon issues of Probus concerns the type *FIDES MILITVM*, of which three specimens have been published with signature - - // II : B.177 in issue 3 (or 6?) and B.189, 189b in issue 4. The first appears from its illustration to show traces of a third 'I' and its likelihood of belonging to officina III is increased by its obverse die link to B.179bis (*FIDES MILITVM*, - - // III). B.189, a British Museum coin from the Gloucester hoard, is certainly from officina III and B.189b, following re-examination, is also likely to read 'III'.²⁶ These three specimens should be deleted: examination of 440 coins with this reverse type in the Rogiet and Gloucester hoards has failed to find any reading 'II' and it appears that it was confined to officina III.

In the final (ninth) Lyon issue of Probus, two versions of the type *Spes* have been noted in officina C. I have described these as 'walking' (*Spes* I, e.g. 527) and 'standing' (*Spes* Ia, e.g. 523); they are probably intended to be the same design, perhaps as interpreted by different die-cutters. A similar pairing has been observed in the *SPES PVBLICA* type of Tetricus I and II²⁷ and this

²⁵ Amandry, Estiot and Gautier 2003, 40.

²⁶ Readings of B.177 and 189b confirmed by M. Amandry and S. Estiot, *in litt.*, October 2004.

²⁷ Bland 1982, 8, 97 n. 184.

may represent continuity of personnel from the time of the Romano-Gallic state. However, the intervening extensive SPES PVBLICA issues of Tacitus (issues 3–4, 7–8) appear to be almost exclusively of the ‘walking’ type (e.g. 334/2).

The 51 Lyon coins of Carus *et sui* and the 230 of Diocletian and Maximian are less susceptible to detailed analysis. The Lyon series of the latter ends fairly weakly, as might be expected in the light of the establishment of the breakaway ‘British’ state of Carausius and Allectus, with one example of the eighth issue and two of the tenth (AD 293), and lacking coins of the new Caesars of that year, Constantius and Galerius.

The Rogiet hoard has produced a good group of new varieties and rarities from Lyon. Fifteen of these have been published as a contribution towards the next supplement to Bastien’s *Corpus*.²⁸ A sixteenth, overlooked at first, and one further rarity noted in the first *Supplément*, are also listed here.

Tacitus

328. Issue 3, SPES PVBLICA, – // CA ; *Sup. I*, B.63α, showing clearly the obverse punctuation IMP-CL-TACITVS-AVG; two specimens.

352. Issue 7, a variant of B.101, reverse FELICITAS SAECILI, C * // – ; a different reverse die from the specimens of B.102 with a similar engraving error.

358. Issue 7, a variant of B.100, reading MARS VCITOR, B * // – .

Probus

464. Issue 4, mule with reverse ORIENS AVG, – // I ; discussed above.

473. Issue 5, ADVENTVS PROBI AVG, – // I ; obv. H41; same dies as *Sup. II*, B.202α.

482. Issue 5, MARS VICTOR, – // III ; obv. G1; *Sup. II*, B.244α, same dies (Ste-Pallaye 2294).

501. Issue 6, VIRTVS AVG, – // IIII ; obv. B2; same obverse die as B.300 and Ste-Pallaye 3017, with punctuated legend.

519. Issue 9, SALVS AVG, – B // – ; obv. IMP C M AVR PROBVS P F AVG, D2; *Sup. II*, B.391α; same obverse die as B.391αa, different reverse die.

522. Issue 9, SALVS AVG, – B (reversed) // – ; obv. IMP C M AVR PROBVS AVG, D2; same reverse die as B.400–1.

Carus

807. Issue 2, VICTORIA AVG, A – // – ; corrects B.455bis; from the same obverse die, which is punctuated P-F-AVG.

Diocletian

881. Issue 1a, PROVIDENTI AVG, – C // – ; cf. B.15, engraving error.

900. Issue 2/3: hybrid reverse IOVI CONSERVAT AVGG, A – // – , as issue 2, but with an eagle at Jupiter’s feet to left, as coins of issue 3 that read IOVI CONSER AVGG.

921. Issue 7, SALVS AVGG, – // C ; obv. B31; *Sup. I*, B.396α; same obverse die as the three other recorded examples.

929. Issue 7, SECVRIT PERP, – // A ; *Sup. I*, B.347α, same dies.

932. Issue 7, SECVRIT PERP, – // C ; *Sup. II*, B.417α; same reverse die as B.417α, 417β.

Maximian

909. Issue 4, HERCVLI PACIFERO, B – // SML ; obv. B1, bust variant.

933. Issue 7, SALVS AVGG, – // C ; obv. IMP MAXIMIAVS P F AVG, K51; obverse engraving error and variant bust/legend combination.

Rome

There are 347 aureliani and 7 denarii from the Rome mint in the Rogiet hoard. The denarii, all of Aurelian (two: 192) and Severina (five: 185, 193–4) appear at first sight to form an insignificant group, but this changes if they are viewed in the context of the ‘reformed’ coins of that reign. From Rome, there are twenty-six coins of issues 8–11, the denarii therefore forming over a quarter of them, or around one-sixth by value if reckoned as half-aureliani. Table 10 summarises Aurelian’s reformed Rome issues in hoards from Britain and France that contain them and appears to demonstrate that this pattern is common to finds from Britain and Gaul, with the exception of the ‘cisalpine’ Maravielle which, like La Venèra, virtually excludes them. The denarii seem to have been intended, at the time, as a significant issue, but found more favour, at least in hoards, in the north-western areas where the unreformed radiates still played an important part.²⁹

²⁸ Besly 2003.

²⁹ The denarii are very rare as archaeological site finds; for an example from Cavillargues (Gard, France) see Alix and Lempereur 2005, 52–5, who also cite two further examples from sites in the Alpine region.

TABLE 10. Aurelian, Rome issues 8–11 in hoards

	<i>aureliani</i>	<i>denarii</i>	<i>total</i>	<i>den %</i>	<i>den value%</i>
Rogiet	19	7	26	26.9	15.5
Gloucester	125	54	179	30.1	17.8
11 British hoards*	14	11	25	44.0	28.2
Nieder-Rentgen	49	22	71	31.0	18.3
9 French hoards†	34	21	55	38.2	23.6
Maravielle	49	3	52	5.8	3.0
La Venèra	760	26	786	3.3	1.7

* Bath, Blackmoor, Coleby, East Harnham, Linchmere, Maltby, Monkton Farleigh, Much Wenlock, Normanby, Penard, Tattershall Thorpe.

† Les Authieux, Brains-sur-les-Marches, Colonne I+II, Fresnoy-lès-Roye I+II, Montbuoy, Montereau, St Maurice, Ste-Pallaye, Troussey.

The relative volumes of Rome issues under Probus have been discussed by Estiot³⁰ and the Rogiet and Gloucester figures confirm that Pink's issue 6 was far and away the largest, followed by issue 1; and that issue 2 was certainly the smallest. Between these in size were four other issues which appear to have been broadly similar, the ranking of which within any single hoard varies (Table 11).³¹

TABLE 11. Probus, Rome – ranking of issues

<i>Issue:</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>	<i>Total</i>
<i>Coins, %</i>								
Rogiet	25.8	3.5	8.1	4.5	12.6	38.9	6.6	198
Gloucester	31.7	1.8	7.0	8.5	8.8	37.2	4.8	941
Nieder-Rentgen	10.1	3.4	6.6	11.6	5.8	50.1	12.4	467
Maravielle	10.8	2.9	5.8	9.9	6.7	55.5	8.4	344
La Venèra	12.4	4.4	8.9	11.1	5.6	46.7	10.7	4870
<i>Ranking</i>								
Rogiet	2	7	4	6	3	1	5	
Gloucester	2	7	5	4	3	1	6	
Nieder-Rentgen	4	7	5	3	6	1	2	
Maravielle	2	7	6	3	5	1	4	
La Venèra	2	7	5	3	6	1	4	

The figures for Nieder-Rentgen, Maravielle and La Venèra are those of Estiot, as n. 21.

The affinities of Rogiet/Gloucester and Maravielle/La Venèra and their differences from each other are again apparent, with Nieder-Rentgen differing from both. With so few sufficiently large hoards to compare, it is unclear whether these differences are regional (for instance, for issues 4 and 5) or relate to quirks in the compositions of the individual deposits. However, six British hoards of the 280s–290s that between them contain 134 Rome coins of Probus show the same basic ranking of issues as Rogiet and Gloucester, though with effectively equal numbers of coins from issues 3, 4 and 5.³²

There are in Rogiet few Rome coins that are not recorded by *RIC*/Estiot/Gricourt, though several *RIC* variants of Probus may be noted in issues 2 and 3. Some other apparent Rome variants seem to derive from misprints in *RIC*. The hoard also contains one specimen in the name of Divus Nigrinianus, infant son of Carinus (854).³³ Coins in his name are extremely rare in Britain, presumably because of the inherent scarcity of Rome coins of the period in British finds. One other appears to have been recorded, perhaps inevitably from the Gloucester hoard.

³⁰ Estiot 1983, 51–2.

³¹ Numerical ranking of the issues provides a very simple visual comparison, regardless of the size of the hoards.

³² Blackmoor, E. Harnham, Linchmere, Monkton Farleigh, Normanby and Somerset.

³³ Gricourt 2000b.

Ticinum

The Ticinum (present-day Pavia, northern Italy) mint is well represented in Rogiet throughout, notably in the 234 coins of Probus which make this the second largest mint group for the reign. Again, parallel study of the 779 Ticinum coins of Probus in Gloucester has been of assistance. The catalogue follows the arrangement in ten issues published by Pink, both to facilitate comparison with previous publications and because at the time of writing a definitive study of the coinage of Probus is still awaited.³⁴ A few comments and suggested modifications may, however, be made regarding issues 3–5. The coins of issue 3 are some of Probus's most spectacular and imposing aureliani, both in their depiction of the emperor and in the use of larger dies. As measured using the diameter of the pelleted outer circle, the study of die diameter as an adjunct to classification has been used elsewhere to good effect, for instance in the London (- - // PLN) nummi of the second and third tetrarchies after AD 306.³⁵ It appears that this is also of value here. As at Lyon, there is a small initial issue, followed by a new set of 'major' reverses used for a considerable period. Within these is an issue using special busts – issue 3, relatively much larger than the parallel series at Lyon; and an issue with shorter obverse legends – issue 4. The basic die module of issue 1 is 20 mm; of issue 2, 20–21 mm; and of issue 3, 21 mm (very occasionally, 22mm). It may be noted in passing that increasing the diameter by 5 per cent enlarges the area usable for the design and legend by 10 per cent. In issue 3 there are two series, using obverse legends IMP C M AVR PROBUS AVG and VIRTUS PROBI AVG. During the course of issue 4 the die module reverts to 20 mm, which is retained for the remainder of the reign.

Various writers have noted the occurrence of small numbers of Ticinum aureliani with punctuated obverse legends and these do appear to form a coherent group, with coins recorded from every *officina*.³⁶ Some dies are punctuated both before and after the emperor's name: IMP·C·PROBUS·P·F·AVG (e.g., 682–3), others only after it (684–7). Their die module is invariably 21 mm and so it would seem that these might have formed the very first issues using the shorter obverse legend IMP C PROBUS P F AVG, the punctuation compensating on the larger module dies for the loss of two characters in the legend. They have therefore been catalogued as a first phase of the fourth issue, together with one coin from an unpunctuated 21 mm obverse (688).³⁷ (One punctuated obverse in the Gloucester hoard retains a longer form IMP C M AVR PROBUS·P·F·AVG.)³⁸ A very small number of coins with longer obverse legends (M AVR – P F AVG, M AVR – AVG) appear, on their die modules, lettering and bust styles, to belong to the second phase of issue 4 (e.g. Rogiet 689 and several coins in Gloucester).

Coins of Pink's fifth issue, which combines existing reverses from issue 4 with obverses IMP C PROBUS AVG, appear to be very rare indeed: there is one in Rogiet (704) and one in Gloucester. They might perhaps be viewed as mules between issues 4 and 6. The signature 'AEQVITI', added to the last issue at Rome, also appears at Ticinum from issue 7, adjusted to fit Ticinum's six-*officina* operation: 'EQVITI' (issues 8–10) appears to have been adopted fairly rapidly, following an experiment with 'AEQVIT' (issue 7, 722).³⁹

There is a steady series of VIRTUS PROBI AVG obverses with armoured and other special busts in every issue from the third onwards. In addition, successive consulships are indicated specifically in obverse legends terminating II, III or IIII.

The ranking of Ticinum issues of Probus may be compared in a similar manner to Rome's (Table 12), again using figures from Estiot for Nieder-Rentgen, Maravielle and La Venèra.⁴⁰

³⁴ A catalogue of the coins of Probus in the Paris and Vienna collections, in preparation by Sylviane Estiot.

³⁵ Stewartby 1996.

³⁶ A rapid survey of specimens and literature accessible to the writer produced 84 examples and many more no doubt survive.

³⁷ As is the case with Lyon, these 'issues' form a convenient way of cataloguing an evolving coinage in which certain elements remain constant (the reverses). Estiot (*in lit.*, June 2005) suggests – for instance – that these '21 mm' coins with shortened legends form part of issue 3.

³⁸ RIC 347, CONSERVAT AVG, - - // TXXT; obv. K41 (BM).

³⁹ The 'hypercorrection' – 'AE' for 'E' – in the word *equitum* (of the cavalry) also appears on coins struck at Milan (precursor of Ticinum) in the name of Postumus, in AD 268. These and other 'ae' for 'e' hypercorrections are discussed by Kent 1973, 66.

⁴⁰ Estiot 1983.

TABLE 12. Probus, Ticinum – ranking of issues

Issue: Coins, %	1	2	3	4	5	6	7	8	9	10	Total
Rogiet	2.6	20.9	9.0	13.7	0.4	11.1	0.4	2.6	29.9	9.4	234
Gloucester	1.7	29.9	8.5	16.6	0.1	17.5	0.4	1.5	18.6	5.3	779
Nieder-Rentgen	-	5.6	11.2	12.9	0.3	7.8	0.3	1.4	45.0	15.4	357
Maravielle	0.7	9.7	7.5	29.1	-	16.4	-	-	20.1	16.4	134
La Venèra	0.6	12.7	10.8	15.6	0.4	15.5	0.6	1.2	26.5	16.2	3632
Ranking											
Rogiet	=7	2	6	3	=9	4	=9	=7	1	5	
Gloucester	7	1	5	4	10	3	9	8	2	6	
Nieder-Rentgen	10	6	4	3	=8	5	=8	7	1	2	
Maravielle	7	5	6	1	=8	=3	=8	=8	2	=3	
La Venèra	9	5	6	3	10	4	8	7	1	2	

While the four smallest issues (1, 5, 7 and 8) are consistently so, there are again differences between the Rogiet/Gloucester pattern, where issue 2 is unusually prominent, and the three continental examples.⁴¹ A collective summary for British hoards, as for Rome above, could not be made on information currently available.

Siscia and other mints

With the correct attribution of some early types of Probus to Rome, it is clear that Siscian issues play a much less prominent part in western hoards than used apparently to be thought, in Rogiet supplying 66 coins, or 2.6 per cent of the aureliani in the hoard. One coin of Probus, no. 767, from issue 4 (VIRTVS PROBI AVG trophy, - // XXIT), may be remarked as an unusual variety, on which the emperor is depicted radiate and cuirassed to the left, holding in his right hand the *pugio*, or eagle-headed ceremonial dagger (Fig. 2). The *pugio* appears on the coinage in the third and fourth centuries, principally on multiples and medallions, and its iconography has been discussed by Bastien.⁴² The new coin from Rogiet appears to be similar to a Siscia coin of the seventh issue illustrated by Bastien (pl. 119, 3; CONCORD MILIT, T // XXI), on which the emperor is helmeted – apparently the only other depiction where the dagger is held in the right hand; and each of these has a counterpart in the same issue and *officina* with a right-facing bust holding the *pugio* in the left hand (B., pl. 123, 8 and pl. 120, 2).⁴³



Fig 2. Probus, Rogiet 767 (scale 2:1).

⁴¹ If the '21 mm' coins of issue 4 are attributed to issue 3, the early bias in Rogiet is emphasized, with issue 3 rising to third place (13.2%); similarly, issue 3 for Gloucester rises to fourth-ranked (13.6%) (A similar exercise for the other three hoards could not be carried out on the information available.)

⁴² Bastien 1992, 1993, 1994.

⁴³ I am now (June 2005) indebted to Sylviane Estiot for details of Siscian 'pugio' aureliani in her records: a total of twenty-five coins, with four varieties of obverse, fourteen of them from *officina* T. Rogiet 767 is otherwise unrecorded, but Estiot has noted fourteen specimens with this version of the bust, from three *officinae* (T, 7; Q, 4; V, 3).

There are several other coins from Siscia (Tacitus, 420–2; Florian, 443–4; Probus, 763–4, 777–8, 799) and Serdica (Tacitus, 423–5; Probus, 800) which appear to be variants not noted in *RIC*, mostly observed since by Estiot, or Pink. Most of these are illustrated.

C. The 'British' Empire: Carausius and Allectus

The Rogiet hoard includes twenty-four coins from the reign of the usurper Carausius (in Britain, c.287–93) and three aureliani of his successor Allectus (293–5/6), together with 757 of the 'quinarii' or Q-radiates of the latter, which will be described separately.⁴⁴ Of the Carausian issues, eight belong to the late series in the names of Diocletian and Maximian or bearing their portraits. One, of Maximian (1002), is an obverse brockage, but plainly a London coin.

With only three exceptions, the coins of Carausius are mint-signed (L for London; C – or G – as yet unlocated) and the unsigned coins are effectively aureliani in terms of their weights and modules. The crude early radiates and issues attributed to Rouen are not represented. There are several noteworthy coins, unrecorded by *RIC*, involving variant obverse or reverse legends (991–2, 994) and one completely new reverse type, no. 998, in the name of Diocletian, with his trademark 'Iovi Conservatori' adapted to the three-emperors format. A further specimen of no. 1003 (Diocletian/MONETA AVGGG; S P // C) has since appeared in the Langtoft A hoard in 2000, from the same pair of dies.

Number 1005 proved, after conservation, to be one of the very finest specimens of the rare 'three emperors' series of c.293, with obverse 'CARAVSIVS ET FRATRES SVI' ('Carausius and his brothers') and reverse VICTORIA AGGG (*sic*). Victory running to right. This precise Victory type was known to Carson from a very worn specimen in the British Museum, apparently from different dies.⁴⁵ The present example shares the same obverse die as Carson's no. 2, which has the same reverse design, but with the legend COMES AVGGG. A second specimen from the same dies as 1005 was offered at auction in 1996.⁴⁶

Two Carausian coins were overstruck on identifiable prototypes: nos 985, on a Rome coin of Gallienus, and 987, on a Lyon issue of Tacitus. On no. 983, another *RIC* variant, there are clear traces on the reverse of lightly-engraved setting-out marks for the positioning of the legend and the wing of the figure of Victory.

The three aureliani of Allectus (1006–8) provide two *RIC* variants from the C mint, one of them known to Burnett,⁴⁷ and a single coin from London, which bears the first (S P // ML) of three marks used at London during the reign. The two C mint coins both belong to the S P // C series, a mark used for most of the reign. The very small number of aureliani of Allectus may suggest a terminus relatively early in his reign, were it not for the large number of Q-radiates, which hitherto have generally been thought to belong at its end, mainly because they are so scarce in hoards – at least, until the finding of Rogiet. These coins will be discussed in the next section.

D. Counterfeits

The Rogiet hoard contains eleven irregular coins, numerically forming 0.28 per cent of the deposit. This is of a piece with the nature of Rogiet, a carefully selected hoard. Nine of these coins are well-silvered copies of prototypes of 260–71. An imitation of Gordian III (1049) is a cast piece of similar module and weight to the aureliani. The sole counterfeit aurelianus (1057) copies a Rome issue of Tacitus, and comes from the same pair of dies as two specimens in the Venèra hoard. In general, counterfeits of aureliani appear to be distinctly scarce: among 6,586 coins of Probus in the Gloucester hoard, just two (0.03%) are irregular, one of them a cast.

⁴⁴ For the dates, see Casey 1994, Chapter 3, who for Allectus follows ideas first aired by Burnett 1984.

⁴⁵ Carson 1982.

⁴⁶ Classical Numismatic Group, Inc., Auction 39, 18 September 1996, 1687.

⁴⁷ Burnett 1984.

THE COINS: Q-RADIATES OF ALLECTUS

Introduction

In addition to its unusual concentration of aureliani, the Rogiet hoard contains 757 examples of the enigmatic Q-radiates ('quinarii') of Allectus; these, together with three of his aureliani, form the latest element of the hoard, since none of the coins of Diocletian and Maximian can be dated later than 293. Hoards containing significant numbers of Q-radiates are few and far between: since 1850, only Blackmoor (1873) has contained fifty or more, though the 70 or so formed less than 0.3 per cent of the whole. Hoards from Bitterne and Old Ford may have consisted entirely of Q-radiates, but no detailed records survive. Elsewhere, Ewelme (1953) included 20 Q-radiates in a hoard of 202 coins; otherwise, these coins appear only in ones and twos. Many surviving specimens are single finds from archaeological excavations or chance discovery and are usually fairly poorly preserved and not suited to intensive numismatic study. Rogiet therefore provides a unique opportunity to examine and study a significant group of Q-radiates.

The most recent consideration of the Q-radiates came as part of a paper on the coinage of Allectus by Andrew Burnett, delivered at a colloquium in London in 1984, and published in the *British Numismatic Journal*.⁴⁸ Several questions regarding these coins have remained unanswered over the years: when were they struck? What was their relationship with the aureliani? Were they a response to Diocletian's reform? Like Burnett, I am not sure that these can be answered definitively, but the Rogiet coins permit us to gain new insights into the structure of this issue and the minting techniques of the 'British' empire. We must bear in mind that in the absence of useful comparative groups, any conclusions drawn can only be provisional, since they depend upon the evidence provided by a single deposit, and further work will be needed.⁴⁹ Likewise, the time scale – imposed by the duration of Allectus's reign – is, in any case, fairly short.

Q-radiates

In brief, the Q-radiates are coins of Allectus characterised by weights averaging around three grams, which bear a portrait of the emperor wearing a rayed crown, as appears on the radiates and aureliani of the third century. Their reverses bear depictions of various ships, the large majority a stylised war galley. There are two series, marked respectively QL and QC, the first attributed to London, the second to a separate mint, the location of which remains uncertain.⁵⁰ (The question is raised from time to time as to whether or not these represent more than one mint, but as will be seen, the Rogiet Q-radiates strongly suggest two establishments.)

The commonest variety is the same for both mints:

Obverse: IMP C ALLECTVS P F AVG; bust B1⁵¹

Reverse: VIRTVS AVG; galley with mast and ram, to left; -- // Q(L or C)

Die diameters, measured across the pelleted borders, are typically 18–19 mm.

For London, there is a single obverse legend but there are variant busts, D1, D2 and, exceptionally, G11 (not represented in Rogiet; a single die? **Pl. 25, A**).⁵²

At 'C', the obverse bust is almost invariably B1, rarely D1 (**Pl. 25, B**),⁵³ but there are several obverse legend varieties, with suffixes ~ P AVG and ~ AVG (both relatively common); also, in small numbers, ~ P FEL AVG, ~ PI FE AVG and ~ P F I AVG.⁵⁴ Very occasional dies read IMP ALLECTVS ~.

⁴⁸ Burnett 1984.

⁴⁹ And, in an ideal world, some further hoards, for comparative study to set against the framework outlined here: we cannot know from Rogiet alone what stage of the QC/QL issue had been reached when this sample was assembled.

⁵⁰ Lloyd 1998. Lloyd detected, but inconclusively, a westerly bias for the finds of C mint coins. Williams 2004, 40–5, also discusses the location of the mints, equally inconclusively, though with a leaning towards a centralized operation.

⁵¹ See key to obverse busts, on pp. 80–1.

⁵² Robertson 1978, 284, no. 35 (here **Pl. 25, A**); Burnett 1984, 28, 34, no. 109. Others, Classical Numismatic Group, Inc. Auction 38, 6 June 1996, 1132 (same dies); CNG Auction 53, 15 March 2000, 1713 (same obverse die).

⁵³ I have encountered two specimens with D1 busts (Burnett 1984, 36, no. 218): in the Hunter Collection, Robertson 1978, 287 no. 64 (type ϵ^1 – see below, ~ P F AVG: **Pl. 25, B**) and the Fitzwilliam Museum, Henderson bequest 3112 (type γ^1 , ~ AVG).

⁵⁴ For 'Pius Felix Invictus'.

Small numbers of variant reverse types occur at both mints. London coins include galleys without masts and some exceptional light craft. Vessels may face left or right. Very rarely a figure of Victory or a river-god is depicted on board. The vessels at 'C' are more consistent, but again a figure of Victory or of Virtus sometimes replaces or stands on the stem; other occasional addenda include a bird at the masthead or a decorated prow. Some of the galley designs appear to evolve from coins of Carausius; one London type appears to be a direct copy of a coin of Postumus.

There is also a second reverse type, which was produced only at 'C': LAETITIA AVG, galley to left or (mainly) right – vessels of different forms from the *Virtus* examples. This occurs with a similar range of obverse legends, again with B1 busts. A further question to be considered is, therefore, the relationship of the *Laetitia* coins to the *Virtus* series.

Like the heavier aureliani, the Q-radiates are essentially copper-alloy coins, with a thin silver coating – a feature that has perhaps hitherto not been obvious, since the vast majority encountered are heavily patinated or corroded. The Rogiet coins, which include one or more uncirculated batches from the C mint, certainly appeared silvery when issued, but as with the aureliani of both Carausius and Allectus, this silvering was very thin and fugitive. In this aspect the silvering of the 'C' coins appears generally to be more substantial than the London examples and the former are for the most part better preserved. There are some coins of both series, presumably those scattered by repeated ploughing, that are badly corroded.

An attempt has been made in studying the Rogiet coins to classify the dies of both mints according to varieties of both design and die-cutting techniques. For the London series, as many die-links have been sought as possible, but more coins are poorly preserved and many of the dies (particularly the obverses) show signs of heavier use than their 'C' counterparts and this part of the study must be regarded as incomplete. For the C mint, however, die study has been aided by generally good preservation, the existence of the two reverse types, varied obverse legends and remarkably consistent die-cutting. Here, we can be reasonably confident that a full die study has been carried out. The full classification of the 749 Q-radiates acquired by NMW is given as Appendix B.

London: obverses

Examination of die-cutting elements such as hair, beard, wreath-ties and others suggests that there are four main treatments of the imperial portrait (see Fig. 3).

A: A rounded head, with hair brushed forwards at forehead, backwards at temple: a naturalistic treatment which sometimes gives a slightly dishevelled appearance. The beard is basically brushed forwards, with small clusters formed by triple strokes from a fine engraving tool. Ties are ribbons of different lengths, both bent to the rear. For the B1 busts, there are usually indications of an undergarment ('vest') beneath the cuirass. Nearly two-thirds (22 out of 36) of the dies cut in this manner are associated with draped busts. Examples 3026, 3055.⁵⁵

B: A head with craggier features, with hair neat and brushed forward. The beard is brushed downwards, well-defined but with a lumpy appearance. The ties may be ribbons or have a string-like appearance. (Approximately 63 dies in Rogiet; example 3085.)

C: A squarer, more angular head, with prominent forehead and hair brushed forward and short, forward at the temple. The beard is brushed forwards and down, consisting of very fine, short strokes. The ties are string-like, one bent to the rear, the other bent forwards across the neck. Apparently not found with draped busts. (Approximately 43 dies; examples 3277, 3281.)

D: A narrower head with a curved forehead and hair brushed forwards. The beard is brushed forwards, comprising paired strokes of the engraving tool. Ties are ribbons, short and bent to the rear. There may be indications of a 'vest'. This variety is not found with draped busts. (Approximately 68 dies; examples 3217, 3223, 3246.)

⁵⁵ See 'Catalogue conventions', on p. 84.



Fig. 3. QL: the four principal obverse treatments.

Groups A, C and D seem to be consistent, though there is a small group of obverses, designated C', comprising heads similar to C but with ties as ribbons, bent to the rear (eleven dies; examples 3173–4) (Fig. 4). This group includes a number of dies of small diameter (17 mm), two of them with draped busts (3033–4). Occasional busts with the hair brushed sideways at the forehead seem mainly to belong with type B and are designated B' (examples 3049, 3122, 3270); one type C die shows hair brushed sideways (3136).

There are small numbers of other treatments, including heads, some large (e.g. 3126), with very neat hair and beards and ties comprising curved or straight 'strings'. These features, from their combinations with others of type B, may be varieties of B, but this is not certain (here, B'', e.g. 3273). There are also dies that appear to show features of more than one of the groups, e.g., A with fine beard similar to C (3025) as well as the odd peculiarity (e.g. 3100) indicative, perhaps, of dies that have been re-engraved.

With all due caution, it may be suggested that A and C represent the work of individual engravers. Type D may represent a development of A, working in a simplified manner. The dies of group B are less consistent: they may involve more than one die-cutter, working in very similar manners, but a definitive classification has so far proved elusive.



Fig. 4. QL: variant obverse treatments.

London: reverses

The principal reverse type comprises a war galley sailing to the left as viewed. It has a mast, a ram and prominent stem- and stern-posts, the latter usually curving over a stern cabin. There is a steering oar (occasionally, two; sometimes absent) and varying numbers of oars, depicted raked forward, at the start of the stroke; pellets often indicate the heads of the rowers or crew. Waves are normally indicated below.

Within this general design there appear to be three principal treatments (Fig. 5):

1: A solid galley, with a prow resembling a reversed £-sign with the lines of the vessel protruding beyond the stem-post. Decoration of the 'oarbox' – the boxlike structure running the length of the vessel above the oars – varies. The mast stays are often doubled, and there is a pellet at the masthead. Usually 7–9 oars, often doubled; 0–6 crew, sometimes armed. Waves are single, curled as shallow S-shapes, four or more.

2: A galley with prominent slim curved stem- and stern-posts. Oarbox usually *////*, but there are other variants. Stays single, occasionally with indication of furled sails(?), pointed finial to masthead. Oars, 5–8; crew, 0 (often) or 4–6, armed on one die; waves, single.

3: Galley with stem springing from the deck, sometimes decorated. Oarbox usually **. Oars, 4–8.

Within this group are three main variants:

3a: generally crudely engraved; stays doubled, plain stern; waves normally doubled (three crests).

3b: neater; stays single, plain stern; waves single, calm or occasional slight swell (3065).

3c: stays single, stern with decorated finial; oars often doubled; varieties of oarbox; waves normally doubled (crest-trough-crest).

Types 1 and 2, though individual details (oars, crew, etc.) may vary, are consistent with the work of single engravers: the form of the waves in type 1, for instance, is characteristic and not found in conjunction with other varieties. Type 3 is less obviously the work of a single hand but there are some dies that combine characteristics of more than one of the three sub-types, so an individual engraver may well be indicated. One die of type 3b has been encountered that lacks the QL signature.⁵⁶

Most of the galleys depicted are of a good size, effectively filling the width of the design area, with the legend *VIRTVS AVG* starting above the bow and ending above the stern. There is, however, a group of dies on which the vessels are distinctly smaller, though identifiably of the same three basic categories. Here, the legend is more spread out, wrapped round the vessel, beginning below the bow and ending past the stern. This is also the case for the dies with mastless galleys to left (see below). Within the group of smaller vessels are several that are essentially unclassified (e.g. 3/25–6). These reverses are designated (1), (2), (3) and (u) – collectively, hereafter, '()'.

Coins bearing galleys of the above general types account for 86 per cent of the London Q-radiates in Rogiet. The remainder comprise several varieties (Fig. 6):

R: Galley to right; prominent fine stem- and stern-posts; two main forms. Oarbox varies. Single stays reaching halfway up the mast. Cabin, steering oar. Oars, 5–7; crew. Waves, variable in form and usually single, are depicted. (Twenty-seven specimens in Rogiet, with varying combinations of vessel, oarbox and waves.) Dies exist that may be described as (R), but with doubled stays, one of which depicts a bird at the masthead (Pl. 25, C).⁵⁷

R': River craft(?) to right. Curved elegant hull, no cabin; rigging similar to right-facing galleys. Oars, 6. (This type not known before the single specimen in Rogiet.)

R-: Galley to right, with cabin, but no mast: two forms, one without a ram. Oars, 6–7; crew armed or unarmed. Waves, 'blobs'.⁵⁸ (Six specimens in Rogiet.)

⁵⁶ BM 1983-3-35, 17.

⁵⁷ BM R3561; Ashmolean (Bodley miscell. B). Bird variety: Ashmolean (Evans).

⁵⁸ Right-facing, mastless galleys, with blob-like waves, are to be found on the 'Rouen' issues of Carausius. These coins, both in gold and billon, bear the legend *LETITIA AVG* or similar. See Beaujard and Havelin 1980.

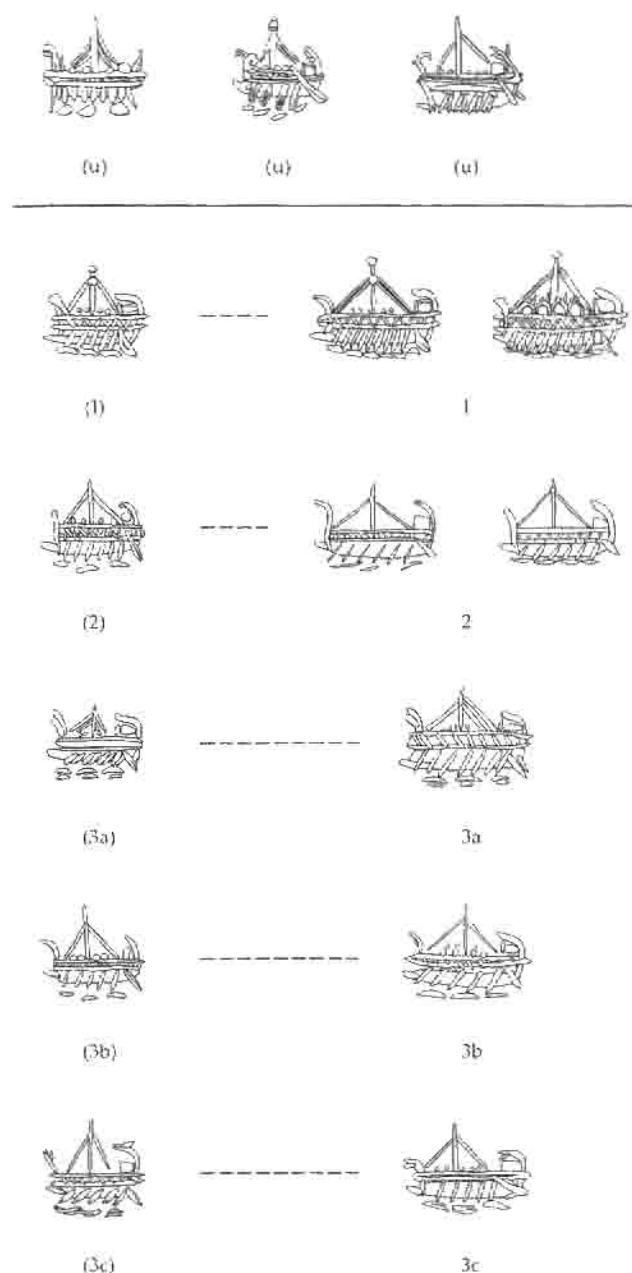


Fig. 5 OL: vessels with masts, to left (NMW/Jackie Chadwick).⁵⁹

L-: Galley with no ram or mast. These are somewhat ambiguous as to direction, but by analogy with the 'Laetitia' issue of Postumus (Fig. 6), which they resemble closely, they face to the left. Similar vessels also appear on coins of Carausius.⁶⁰ (Two specimens in Rogiet.)

L': Small coastal craft (?) to left. Oars, 5; crew. The four Rogiet specimens are from different dies with varying designs:

- (i) without mast; crew armed with spears and shields; two steering oars; single waves;
- (ii) with mast, single forestay, double aft; crew with spears and shields; two steering oars; no waves;

⁵⁹ Fig. 5 is based on (from top, 1. to c.) Rogiet 3173, 3125, 3262, 3051, 3194, 3198, 3082, 3057, 3127, 3042, 3097, 4020, 3159, 3066, 3168.

⁶⁰ E.g. denarius, BM 53.5.12, 247 (Shiel 1977, 120 no. 13).

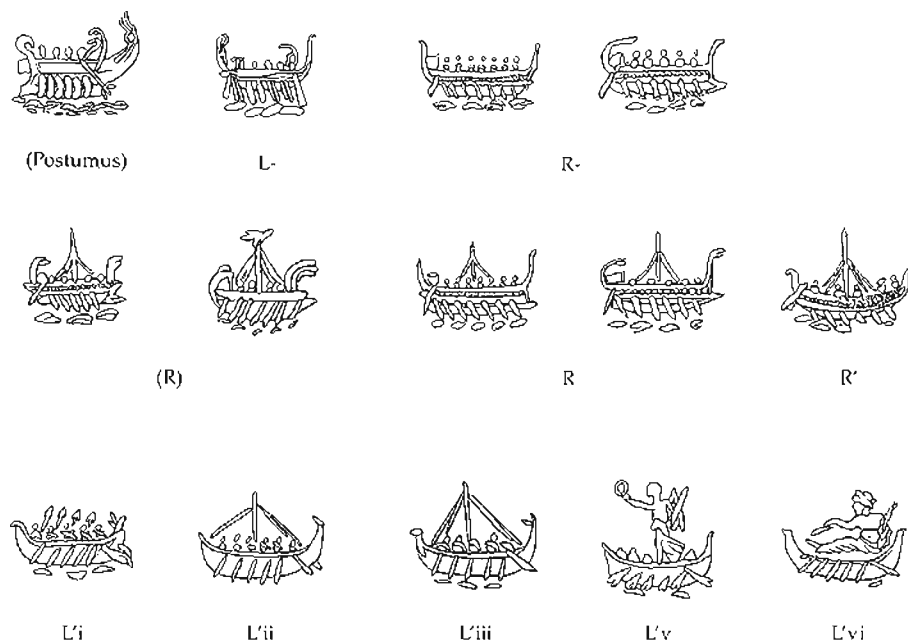


Fig. 6. QL: vessels to right and other variants (NMW/Jackie Chadwick).⁶¹

- (iii) with mast, double stays; crew with shields; one steering oar; single waves;
- (iv) with mast, double stays; crew with shields; two steering oars; waves double (similar to 3c? but coin corroded).

Two further varieties of this type of boat are represented in the British Museum and Ashmolean collections:

- (v) without mast; a figure of Victory stands left among the crew, amidships, holding a wreath and palm (Pl. 25, D).⁶²
- (vi) without mast or crew; a river-god(?) is seated left in the boat, holding a wand(?) and reed (Pl. 25, E).⁶³

How do the various obverse and reverse types relate to each other? In attempting some sort of synthesis, it must be remembered that what is summarised above is the cutting of families of dies, rather than their actual use. Their combinations with each other may be summarised as follows:

TABLE 13. Obverse dies and their combinations (Rogiet: QL, 292 coins)

Obv.	Rev.	<i>D busts</i>		<i>B busts</i>		<i>B busts</i> No masts	<i>B busts</i> others	Total Obv.
		<i>galley l.</i>	<i>galley r.</i>	<i>galley l.</i>	<i>galley r.</i>			
A		19	1	13				33
B		3		48	6	2		59
B'				4			1	5
B''		2		5	2	1		10
C				30	8	2	1	41
C'		2		10	1			13
D				61	4	2	3	70
Other		2		2				4
								235

⁶¹ Fig. 6 based on: Postumus, NMW 86.97H/81 (Bassaleg hoard), Rogiet 3004, 3009, 3005; Ashmolean Bodley, Evans, Rogiet 3274, 3278, 3294; 3290, 3291, 3292. Ashmolean, BM.

⁶² BM 1935-11-17, 1314; Ashmolean, two specimens, one from same dies as BM (Pl. 25, D).

⁶³ BM, two specimens, 1863-11-26, 3; 1971-10-12, 1 (Pl. 25, E); Allen 1860.

For the biggest group from London, the following reverse types appear in combination with the different obverses:

TABLE 14. Reverse dies in combination with B1 obverses (Rogiet: Galley I., //QL, 212 coins)

Bust: Rev:	A	B	B'	B''	C	C'	D	Total rev.
(u)				2		1	1	4
(1)	1	4					1	6
(2)		1						1
(3)	1	6					9	16
1	1	8	1		6	1	14	31
2	5	11	1	1	11	3	8	40
3a	2	5		3			9	19
3b	6	10	1	2	10	2	13	44
3c		5			2	4	8	19
3/u	1	1	2		2	1	4	11
								191*

*Actual dies 188 (approx.) – three reverse dies are used with more than one obverse category

From these two tables, some possible pointers begin to emerge, but it is too soon to say whether the gaps are genuine, for instance the lack of draped busts for obverses C and D, or the lack of type 3a reverses with type C obverses.⁶⁴ In Table 14, twenty-six reverse dies (14 per cent) are of () type, with 162 of the mainstream versions. The corresponding proportion used with draped-bust obverses is 35 per cent (13, 24).

Linking the smaller groups into the whole is difficult, though there are some reverse dies of types L-, R- (all), R, (3) and (u) which share waves depicted as single blobs. I cannot prove this, but it would appear that many of these dies (those designated () and L-) could be the earliest dies to be cut. The L- dies hark back most closely to previous coinages (Postumus, Carausius), while the () dies show the most variability and are the hardest to classify. We shall return to this point in the context of the C mint issues. This group also includes the single die which reads 'QV' rather than 'QL' (3262). The obverse dies are for the most part consistent within the scheme set out above.

The legends are extremely consistent, both obverse and reverse, with the exception of a single observed die-cutting error, VITRVS AVG (3046).

C mint: obverses

A similar exercise to that carried out for London coins has revealed five distinctive treatments of the portraits of Allectus on the Q-radiates of the 'C' mint. These have been given the Greek characters α-ε, and may be described as follows, for the dies used with *Virtus Aug* reverses (Fig. 7).

α: A bold, well-modelled head, bearing some resemblance to Carausius; hair has a coarse appearance, brushed forward at the forehead; beard full, with curved outlines, hair indicated by bold horizontal strokes; no eyebrow; cuirass fairly simple, almost all dies lacking rivets across top portion of cuirass on the chest, and with few, prominent *pteriges*; ties are broad ribbons of fairly coarse appearance.

β: A neat head of more rectangular shape, with a square forehead; hair angular, with edges clearly defined, indicated by fine lines, brushed across forehead; beard also neat, less full, with the hair indicated by fine lines running downwards and backwards; fine eyebrow; shoulder more complex, with fine *pteriges*; ties are well-defined ribbons with distinct loops.

γ: A rugged, square-jawed head; hair of fine lines, brushed sideways at forehead; beard mainly short vertical strokes; eye ridge but no eyebrow; the bust similar to β, but always lacks rivets

⁶⁴ One specimen C'(3a noted in Ashmolean (Evans).



Fig. 7. QC: the five obverse treatments (*Virtus* series).

across top portion of cuirass on the chest, *pteriges* are few and point downwards and there are indications of a 'vest'; ties are fine ribbons with a sharp angle and pellets.

δ: A head with a square forehead dropping vertically to a snub nose; hair indicated by short strokes, vertical/forward at forehead; beard indicated by horizontal and vertical strokes, prominent angle on cheek and extends onto neck; eyebrow; prominent shoulder, with hints of decoration and numerous fine *pteriges*, indications of 'vest'; ties are short, twisted(?) ribbons, with one or more pellets at tips. (One die lacks the ties: 3534ff.)

ε: A portrait bearing some resemblance to Carausius, more finely modelled than α; hair indicated by fine strokes, brushed forward at forehead; beard of horizontal and vertical strokes, occasionally onto neck; eyebrow; shoulder with fine *pteriges*, which curve downwards; ties are very fine ribbons, some with pellets.

These five treatments are remarkably consistent. They are also found in the *Laetitia* series, but here there is a degree of variability, notably in the shapes and sizes of the emperor's head. Some effigies are hard to classify, for instance 3303, 3327, 3348. Occasionally, there are traces of the beard on the neck (α, β) and for type γ, there are sometimes rivets on the top of the cuirass, and indications of a 'vest' for some ε dies. In this series, perhaps, the dies are more experimental than in the *Virtus* series, where the die cutting techniques are consistent.

Prima facie, the existence of these five distinct treatments suggests the presence of five die-cutters for the obverse dies at the C mint. One's instinct suggests that this number seems high, in the light of observations elsewhere, for instance the two identified by Estiot at Siscia under Tacitus.⁶⁵ However surprising this might seem, the physical evidence does appear to point to this conclusion. The number of varieties observed in the reverses (below) would appear to support the notion of a significant group of die-cutters. The numbers of dies of each obverse variety in the Rogiet sample are summarised in Table 15.

⁶⁵ Estiot 1987, 26–7.

TABLE 15. Occurrence of QC obverse styles

	α	β	γ	δ	ϵ	Total dies
LAETITIA AVG (1)	8	10	9	4	12	43
LAETITIA AVG (2)	12	11	12	3	14	53
VIRTUS AVG	16	43	33	37	38	167

C mint: reverses

Like the C mint obverses, its reverse dies fall into consistent groups (in the case of *Virtus*, eight) with a very small number of variants that may be related to these groups.

LAETITIA AVG

With one exception, the *Laetitia* and *Virtus* reverses depict very different forms of galleys. Many of the *Laetitia* ships are relatively squat and all lack stern cabins; however, all are equipped with rams, formed by one or by two strokes of an engraving tool, so they appear to be intended to represent warships. Without exception, the oars are depicted swept towards the stern, at the end of the stroke. The *Laetitia* series provides the closest direct comparison with ships depicted on coins, notably denarii, during the reign of Carausius. There is, however, one *Laetitia* die that depicts a ship of a type used with the *Virtus* legend and this appears to form a link between the two series.

The *Laetitia* dies may be subdivided into two reasonably self-consistent groups, the first of which shows waves below the vessels, the second without waves. The vessels of the two groups differ (Fig. 8). There are many obverse die-links within each of these two groups, but only one has so far been observed between them.

First group: dies depicting waves

L: Galley sailing to left; sketchy style, with stem, oarbox and stern formed by paired continuous lines; oarbox |||||; steering oar in water, showing flukes; 5 or 6 paired oars; 0 or 4 (on one die) heads; masthead a cross tree formed by pellets; stays, single or double; ram a long, single or double stroke; waves, single or paired (5 dies in Rogiet).

The general type for the remainder of the series is a galley sailing to the right, in a sea depicted by single or paired waves.

1.1a: Sketchy style as type L above, presumably by the same hand; oarbox |||||; stays, double; waves, single (2 dies).

1.1b: Galley with a squarer overall shape, apparently a development of 1a: oarbox |||||; steering oar in water; 7–8 single oars; 4 heads; masthead cross tree of pellets; stays, double; ram, two strokes; waves, single (5 dies).

1.2a: Curls on stem and stern, stem reaches ram; oarbox ||||| or plain; steering oar more prominent; 4–5 paired oars; 4–5 heads; masthead a compact cross tree of pellets; stays, generally single; ram, generally two strokes; waves, paired (7 dies).

1.2b: Similar to 2a; 5 single oars; ram, single stroke; waves, paired (5 dies, e.g. 3311).

1.3: Tall galley; curls on stem and stern; oarbox ||||| or |||||; steering oar with flukes, fully visible; 4–5 composite oars; 4 heads (one die with none); two forms of cross trees; stays, double, apparently slack; ram, single stroke; waves, single (9 dies).

1.4a: Stem and stern less prominent, some dies with knopped finials; oarbox |||||; prominent steering oar with flukes, across gunwale; 4–5 composite (one die each) or 6–8 single oars; 4–7 heads; masthead a compact cross tree of pellets; stays, double; ram, two strokes; waves, single (5 dies).

1.4b: Similar to 4a, but prominent steering oar has a single curved blade (3 dies, e.g. 3326).

1.5: Unclassified reverses (see plates).

a: sketchy stem/stern; oarbox |||||; no steering oar; oars unclear (5, doubled?); stays, single; waves, single (1 die, 3313).

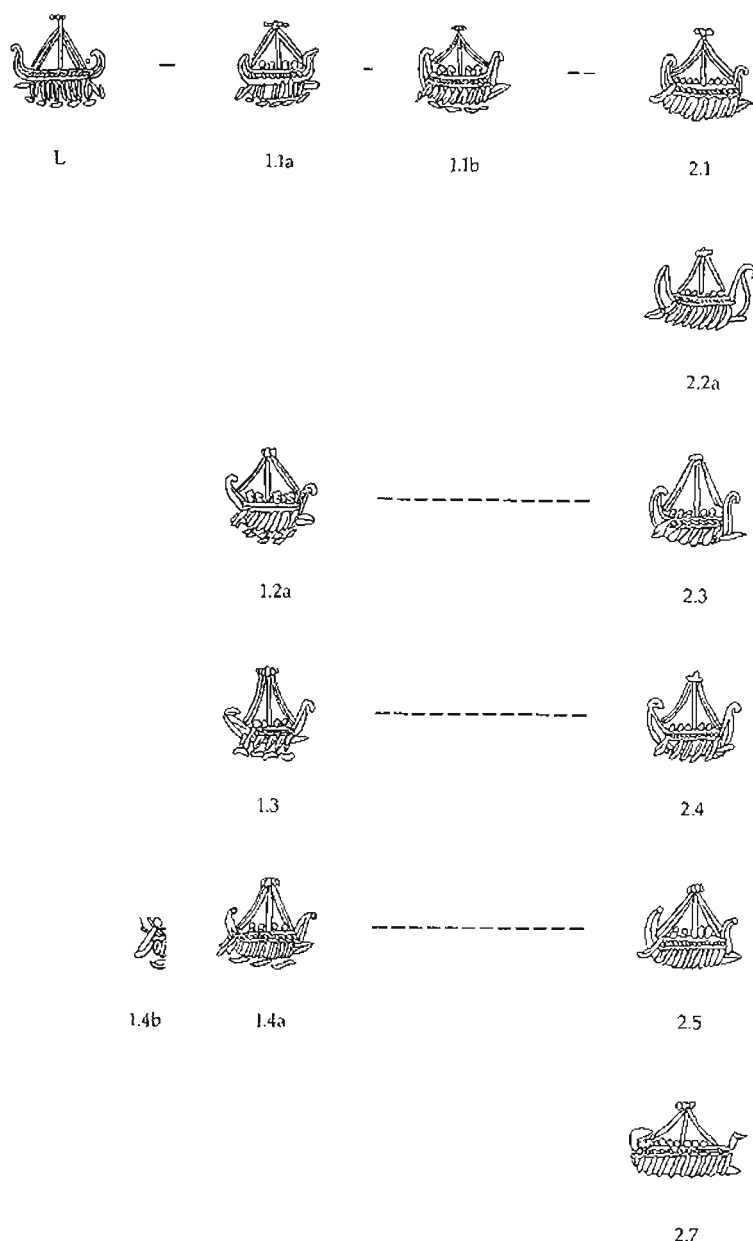


Fig. 8. QC: classification of LAETITIA AVG reverses (NMW/Jackie Chadwick).⁶⁶

- b: Similar to 2b, but single bladed steering oar and ram of two strokes (1 die, 3336).
 c: Similar to 2b, but pellet at masthead; ram of two strokes; waves, single (1 die, 3347).
 d: Bulbous prow, with closed curls on stem and stern; curved oars; hint of a steering oar (1 die, 3323).
 e: Sketchy stem with large curl; oarbox |||||; no steering oar?: 8 curved oars; 5 heads; stays, single; waves, single (1 die, 3348).
 f: Sketchy stem; oarbox; hint of steering oar; 4? paired oars; 5 heads; stays, double; single continuous wave (1 die, 3350).

⁶⁶ Fig. 8 based on: Rogiet 3302, 3335, 3319, 3398; 3354; 3330, 3358; 3343, 3371; 3341, 3365; 3423.

Second group: no waves

The general type is as previously, but without the depiction of the sea. Similar general galley type, but differing forms. Steering oars are more consistently single-bladed and usually prominent.

2.1: Galley with square appearance, curl on stem and stern; oarbox \\\\\\\, fine; 6–8 oars, paired; 4,6 or 7 heads; pelleted cross tree at masthead, clear of stays, which are doubled; ram, two strokes (9 dies).

2.2a: Bulbous stem and stern; oarbox \\\\\\\; 5–7 oars; 4 heads (one die with none); stays, single; ram, single stroke (10 dies).

2.2b: Similar to 2, but stays, double; ram, two strokes (3 dies, e.g., 3369, which also appears to show the crew armed with spears).

2.3: Curl on stem and stern; oarbox \\\\\\\; 4–6 oars; 4–6 heads; stays, mostly double; ram, single stroke (8 dies).

2.4: Prominent curl on stem and (usually) stern; oarbox |||||; four oars; 4–6 heads; stays, double, slack; ram, single stroke (11 dies).

2.5: Curved stem and stern often with knopped finials; oarbox \\\\\\\, fine; 6–8 oars, curved and moulded to vessel; 4–6 heads; pelleted cross tree at masthead; stays, double, reaching masthead; ram, two strokes (14 dies).

2.6: Unclassified reverses (see plates).

a: Similar to 4, but closed curls and oarbox; 5 paired oars, with larger steering oar of the same form; 4 heads; stays, double (1 die, 3375).

b: Similar to 4, but oarbox; 5 single oars, mid-stroke; 5 heads (1 die, 3376, 3401).

c: Similar to 4, but with prominent stem; keel and ram formed by a single long stroke (1 die, 3388).

d: Sketchy vessel with pointed stem and stern; 4 paired oars; 4 heads; ram a short single stroke; sketchy lettering (1 die, 3402).

e: Similar to 3, but with an elegant swan's neck stem; 4 curved composite oars; no steering oar (1 die, 3422).

Transitional type?

2.7: Galley sailing to right, with cabin, as *Virtus*, type 1 (see below); oarbox \\\\\\\, open at bow and stern; no steering oar; 9? Oars, swept back at end of stroke; 6 heads; masthead a cross tree of three pellets; stays, single (1 die, 3423).

VIRTUS AVG

The general type comprises a galley sailing to the left as viewed. It has prominent stem- and stern-posts, the latter usually curving over a stern cabin; a ram; a steering oar (occasionally absent); variable numbers of oars and crew (indicated by their heads). There is no indication of waves below the vessel.

1: Sketchy stem post, some continuing down to the ram, which also appears to issue from the front oar; oarbox |||||; small cabin; 7–10 oars, swept back at the end of the stroke; three-four pellets or a short cross-tree at the masthead (15 dies in Rogiet).

2: Simple, beak-like stem post, stopping at the oarbox; ram appears to issue from front oar; oarbox \\\\\\\; small cabin; 6–9 oars, swept forward at start of stroke; two-three pellets or a short cross-tree at masthead (17 dies).

2': Variant of 2 with a prominent stem post with a curled finial (1 die, 3450–1).

3: Well-rounded vessel with often prominent stem- and stern-posts, the latter following from the curve of the hull over rear cabin and usually ending in a knopped finial; the ram solid and appearing integral to the hull; oarbox \\\\\\\; masthead varies (29 dies).

3'i: Variant of 3 with a bird at the masthead (1 die, 3662).

3'ii: Variant of 3 with prow in the form of a ram's(?) head (1 die, 3731–2).

3'iii: Variant of 3 with animal head(?) prow and lower edge of oarbox formed by pellets (1 die, 3663).

3'iv: Variant of 3 with ram's head(?) prow, sketchy ram and crude lettering (1 die, 3476).

3'v: Variant of 3 but Victory standing to left, holding wreath and palm, replaces the prow/stem post (not in Rogiet).⁶⁷

3'vi: Variant of 3 but figure (Virtus?) at the prow (see note 67).

4: Plain stem extending down to ram; prominent high squarish stem cabin; oarbox \\\\\\\; normally 5 oars, 6 heads and bulbous steering oar; masthead usually a short cross-tree (28 dies).

5: Stem extends down to ram, form varies; oarbox \\\\\\\; 5–6 oars, slightly towards stern or vertical, mid-stroke; 6–7 heads; prominent curving steering oar, usually crossing gunwale; masthead varies (30 dies).

5': Variant of 5 but Victory standing to left, holding wreath and palm, replaces the prow/stem post (1 die, 3687).

6: Stem post springs from deck; stem post emerges from oarbox, \\\\\\\; 5–6 oars, swept back towards end of stroke, variable; usually 6 heads, occasionally 7; small steering oar; masthead varies (21 dies).

6': Variant of 6 but Victory holding wreath and palm stands to left on the prow/stem post (1 die, 2002.14H).⁶⁸

7: Similar to 6, but oarbox \\\\\\\ and 5–6 oars, mid-stroke or swept back towards end of stroke; 6–7 heads; steering oar more prominent; pellet at masthead (14 dies).

8: Stem extends down to ram, which is formed by two lines, the upper usually aligned to oarbox; prominent cabin, form varies – often long curving stern post above; oarbox \\\\\\\; 5, occasionally 6 oars, swept forward to beginning of stroke; curved steering oar; 4, occasionally 5 heads.

Categorised by mastheads:

8a: with single pellet at masthead (7 dies);

8b: with two pellets at masthead (3 dies);

8c: complex masthead (40 dies);

8c': variant of 8c but Victory holding wreath and palm stands to left on prow (not in Rogiet).⁶⁹

Total *Virtus* reverse dies in Rogiet sample: 211

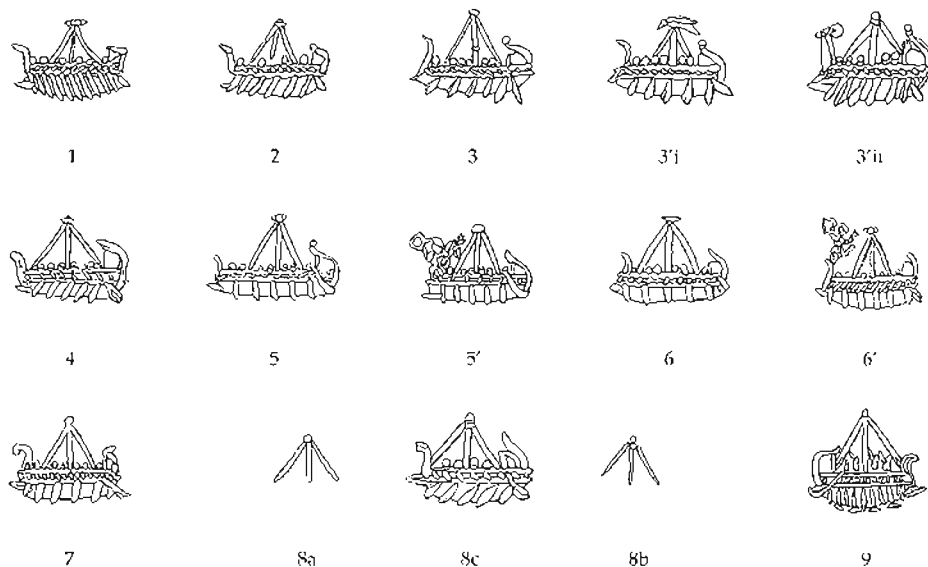


Fig. 9. QC: classification of *VIRTUS AVG* reverses (NMW/Jackie Chadwick).⁷⁰

⁶⁷ Classical Numismatic Group, Inc., Auction 27, 29 September 1993, 1137. A second 'Victory' specimen (CNG Auction 32, 7 December 1994, 452) has re-appeared as CNG Auction 73, 13 September 2006, 684, now classified (correctly) as 'figure (Virtus?) standing at prow brandishing spear and shield' and therefore a new variety, 3'vi.

⁶⁸ Others from same die in BM. Ashmolean.

⁶⁹ Ashmolean (Evans).

⁷⁰ Fig. 9 based on: Rogiet 3428, 3651, 3468, 3662, 3732; 3497, 3501, 3687, 3521, 2002.14H; 3560, 3746, 3608, 3747, CNG, as next note.

One specimen of a further variety of *Virtus* reverse, not represented in Rogiet, has been noted:

9: VIRTVS AVG, -- // QC: galley to right, with ram, cabin and curved steering oar, of a form that does not match the above classification; on board are four armed men; slight indication of waves (Pl. 25, F).⁷¹

This coin shares its obverse die (IMP C ALLECTVS AVG, type 8) with a Rogiet coin of type LAETITIA AVG (group 2, 3420: Pl. 25). Like *Laetitia*, group 2, type 7, this appears to form a type that is transitional between the two series.

Although there are eight significant stylistic varieties of *Virtus*-galley, it need not be necessary to postulate that many die-cutters: several types share a number of characteristics sufficient to enable a suggestion that they form varieties of a single hand, for instance 1 and 2; 5 and 6 (perhaps); and (possibly) 8 as a simplified 3. However, this must remain at present no more than a suggestion.

C Mint: Synthesis

It appears likely that the two groups of reverse dies in the *Laetitia* series are sequential, the first comprising those dies which depict waves (including those with left-facing galleys); the second, those dies that lack waves. This is suggested by two pieces of evidence, though neither is conclusive:

(i) In the case of the single obverse die link between the groups (3315–3356), the earlier state of the die is that combined with the ‘waves’ reverse. Unfortunately, this coin is somewhat corroded, but flaws on the second coin in the letters A and V of ‘Allectus’ may be observed under magnification, that are not present on the first.

(ii) In the course of this study no specimen has yet been found that combines a *Laetitia* reverse depicting waves with an obverse die reading IMP C ALLECTVS AVG, i.e., the shortest of the obverse legends. It appears to be a general principle that obverse legends in a single reign tend to become simplified with time; if so, this may suggest that the two groups are sequential. However, one may note that the longest forms (PI FE ~, P FEL ~, PFI AVG), though lacking in the second group, do appear in small numbers with the *Virtus* series (and that in the Rogiet sample, the proportions of the shorter legends are higher for LAETITIA AVG (2) than for VIRTVS AVG (Table 16)).

TABLE 16. Rogiet hoard, percentage occurrence of QC obverse legends

	<i>Longer obvs</i>	~ P F AVG	~ P AVG	~ AVG	<i>Total dies</i>
LAETITIA AVG (1)	11.6	51.2	37.2	–	43
LAETITIA AVG (2)	–	21.2	51.9*	26.9	52
VIRTVS AVG	1.8	65.3	22.8	10.2	167

*Includes one die IMP ALLECTVS P AVG

An element of evolution may also be observed in the *Laetitia* designs, for instance from L to 1.1a to 1.1b to 2.1, all seemingly from the same hand. Similarly, the pairings 1.2 and 2.3, 1.3 and 2.4, 1.4 and 2.5 appear to have many features in common.

The *Virtus* series itself is so consistent in die-cutting (apart from type 9, there are no ‘unclassifieds’) that it appears to represent a more settled phase and is therefore arguably later than *Laetitia*. Two transitional reverse dies appear to bridge the series: *Laetitia* with a *Virtus* type of galley (type 2.7: Rogiet 3423) and the *Virtus* example with a right-facing, unclassified galley (type 9, Pl. 25, F).

Within the Rogiet deposit, both *Laetitia* and *Virtus* (QC) coins are in fairly fresh condition (though with a number of corroded, presumably plough-scattered, examples). The degree of die-

⁷¹ Classical Numismatic Group, Inc., Auction 38, 6–7 June 1996, 1134. In a few other cases the craft, though belonging to one of the main varieties, varies somewhat in form and may represent an early example of the variety, e.g. 3733–4; and Fitzwilliam, Henderson 3112 (n. 53 above): the coin is poorly preserved but the ship appears to be of type 8, with the upper bodies of the crew indicated, as is the case for this CNG specimen.

linking, however, is greater within the *Virtus* series, which includes several uncirculated, mint-fresh, groupings:

- (i) nos 3534–44: eleven die duplicates, characterised by a type δ (PF) obverse that lacks ‘wreath ties’ and a type 6 reverse, with further links to two α (PF) and two type 6 reverse dies (3421–4); fifteen coins in all.
- (ii) nos 3641–53: thirteen die duplicates, δ (P)/2. This obverse appears with three further reverse dies (2(2), 6: 3640; 3654–6; 3697–9), two of these in turn linked to an ϵ (PF) obverse, itself linked to two further reverse dies (2, 8c: 3443–8: 3614); in all, twenty-seven coins.
- (iii) nos 3595–608; 3619–28: twenty-four coins, from two obverse dies (δ (PF), ϵ (PF)) and four reverse dies (all 8c).
- (iv) nos 3569–71; 3628–31; 3704–8: twelve coins from two obverse dies (ϵ (PF), γ (P)) and two reverse dies (8a, 8c).
- (v) nos 3482–5; 3528; 3555–9; 3694; 3700, 3545: a more diffuse group linking thirteen coins from four obverse dies (β (PF, 2), (P); ϵ (P)) and six reverses (4(2), 6(2), 7(2)).

Whilst it is possible that this degree of linking represents a quirk in the assembling of Rogiet, it is highly likely that the *Virtus* coins from the C mint, notably the above groups, are the very latest in the hoard.⁷²

It is provisionally suggested, therefore, that the *Laetitia* series forms the first phase of production of Q-radiates at the C mint, followed by *Virtus*, the tentative nature of the first – both in obverse and reverse dies – giving way to very settled and consistent production in the second. It appears possible, also, that Q-radiates may have been produced at the C mint before they were introduced at London, after which both mints issued the *Virtus* type. At London we observe, in the reverse dies in particular, signs of experimentation which parallel those at C for the *Laetitia* series. London obverses, though, are more consistently ‘Allectan’ throughout.

In general, it appears that at the C mint, obverse dies of all types and legends were used with reverses of all varieties, within each phase. In the QC series, a single reverse may link obverse dies which differ in style, legend, or both. Where there are obverse-linked pairs, the majority of these involve reverses of the same stylistic type and this may, perhaps, provide a glimpse of the procedures whereby new dies were issued to the moneyers. Something similar, but less consistent, is seen at London; here, where reverse dies with the smaller ships – classified in brackets: ‘()’ – are obverse linked, both dies tend to be of this type, if not always of the same classification.

Some design considerations

The depiction of ships on Roman coins and the simplifications and compromises involved have been discussed elsewhere, notably by Orna-Ornstein, to whose work and that of others the reader is referred. In the context of Allectus’s coinage, the evidence from Rogiet adds little to this discussion, except that one may note the depiction of masts on three specimens of the putative river-going vessels discussed on pp. 188–9 and shown in Figs 18–19 of Orna-Ornstein’s article (Rogiet 3291–3, London mint), a feature not previously observed, and the apparently unique vessel depicted on Rogiet 3294 (also London).⁷³

Of the variations on the standard reverse designs, Rogiet lacks London coins of the types where a victory figure or a ‘river god’ replaces the mast/crew. However, several C mint dies in the hoard are variant, some of them apparently hitherto unrecorded. The most dramatic of these is 3662, a variant of *Virtus* reverse 3, which depicts a prominent bird at the masthead. Webb, in *RIC* 5(2), gives as no. 57 a London Q-radiate with ‘bird on mast’, citing his own ‘The Coinage of Allectus’

⁷² That a proportion of the C mint coins may not have moved very far from their place of minting before they were hoarded might at first sight be taken to support a westerly location for that mint. However, although we know where the hoard was deposited, we cannot know where it was assembled; the question of the location of ‘C’ must remain open.

⁷³ Orna-Ornstein 1995; see also Mason 2003, especially Chapter 9.

no. 88, derived from Roach Smith's *Collectanea Antiqua*.⁷⁴ This may well be the Ashmolean (Evans) specimen referred to above: the galley is a small (R) type, the bird perhaps an eagle. On the Rogiet coin, the bird itself is larger and carefully delineated, having the appearance (if it is possible to tell at the scale involved) of a member of the crow family. The significance of this is uncertain, but this motif also appears on Quentovic coins of Charlemagne in the early ninth century, where the bird has been interpreted as an 'imperial' eagle.⁷⁵ Few Q-radiates have been found on the Continent, and the Charlemagne is a very rare variety, so these two issues would appear to be completely unrelated.

On some QC dies a Victory holding a wreath and palm stands on, or replaces, the stem post. This has been noted previously and occurs for at least four of the *Virtus* varieties, two of them present in Rogiet (3687; 2002.14H) as well as the London versions described above. Another QC variety depicts *Virtus* at the prow (see note 67).

Of other design variants, several QC reverse dies appear to show decorated prows, one of which seems to be a horned ram's head (3731-2). How much to read into these is unclear – it appears to me that some of the minor design variations, for instance the single 2' *Virtus* die, may have arisen in the correction of an engraving error. We may also note that the bird and the 'ram's head' varieties appear to be the work of the same die-cutter; and within this reverse type (3) many dies appear to have small additional decorative details, for instance 3452, 3456. These may represent a personal quirk of this die-cutter. However, the existence of 'bird' and 'victory' varieties at both mints suggests that these may have been officially-inspired.

Metrology and die numbers

From the above discussion, it is apparent that there is no stylistic or physical overlap between the QL and QC series, and these therefore appear to be the products of separate establishments.

Weights may be summarized as follows (see also Appendix C)

QL VIRTVS AVG average 2.95 g, standard deviation 0.37 g (96.6% cleaned)

QC LAETITIA AVG average 3.05 g, standard deviation 0.26 g (93.6% cleaned)

VIRTVS AVG average 2.99 g, standard deviation 0.26 g (87.5% cleaned)

Die-axes: QL, 0°: 32.2%; 180°: 67.8%

QC, 0°: 0%; 180°: 100%

The die-axes parallel the pattern that may be observed for the aureliani.

How big was the issue of Q-radiates? Of the sample provided by the Rogiet hoard, only the *Virtus* element of the QC series provides a sample that is both fully die-studied and big enough (328 coins) for an estimate to be made of the likely number of dies employed in its manufacture. The method chosen is that of Lyon, using two of the four formulae discussed by him:⁷⁶

Formula (2): $D_{est} = d + d_1 \cdot d_1 / 2d_2$

Formula (3): $D_{est} = d + d_1 \cdot (d_1 + d_2) / (2d_2 + 3d_3)$,

where:

D_{est} is a central estimate of the total number of obverse (or reverse) dies used in the coinage;

d is the total number of obverse (or reverse) dies recorded;

d_1 is the number of dies from which only one specimen is recorded;

d_2 is the number of dies from which exactly two specimens are recorded;

d_3 is the number of dies from which exactly three specimens are recorded.

The following results were obtained by averaging the estimates based on Lyon's formulae (2) and (3). In Lyon's view, these are the most appropriate for use where some dies are clearly over-represented in the sample, as in the case of the die-duplications here.

⁷⁴ Webb 1906

⁷⁵ Horstmann 1966. My thanks to Martin Allen for providing me with a copy of this. See also Grierson and Blackburn 1986, pl. 34, 749.

⁷⁶ Lyon 1989.

VIRTUS AVG, - - // QC:

Observed obverse dies:	$d = 167; d_1 = 104; d_2 = 33; d_3 = 14$
Observed reverse dies:	$d = 211; d_1 = 155; d_2 = 35; d_3 = 13$
Observed combinations:	$d = 232; d_1 = 187; d_2 = 25; d_3 = 12$
Total obverse dies:	$D_{est} = 315; 95\% \text{ confidence range } 286-352$
Total reverse dies:	$D_{est} = 518; 95\% \text{ confidence range } 453-604$
Total combinations:	$D_{est} = 812; 95\% \text{ confidence range } 699-969$

In other words, the sample furnished by Rogiet is on the central estimates likely to represent around 53% and 41% of the obverse and reverse dies, respectively, for this element of the Q-radiates (in broad terms, 45–55% and 35–45%).

The method may be applied to the other two groups, but the small sample, on the one hand, of the QC *Laetitia Aug* coins and the probable incompleteness of the study of London, on the other, render the results distinctly speculative. For what it is worth, average results for Lyon's formulae (2) and (3) for the QC *Laetitia* issue (95 obverse dies observed) suggest of the order of 200 obverse dies for that series; and for London (235 obverse dies observed), perhaps as many as 700. Mindful, however, of Buttrely's strictures regarding attempts to estimate the sizes of ancient coinage issues,⁷⁷ it would perhaps be unwise to take this procedure any further: we have no idea of the output per die achieved either at London or at C. However, an issue that may overall have involved over 1,200 obverse dies was presumably not intended to be small.

One comparable third-century study may be cited, by way of wider imperial perspective: Roger Bland's work on the 'silver' radiates of Gordian III (238–44) at the mint of Antioch.⁷⁸ Here, studies of two issues (represented by samples of 355 and 645 coins) suggested obverse die numbers centred on 674 and 2,279 respectively, using the Good/Esty formula.⁷⁹

Chronology and circulation

A definitive answer to the position of the Q-radiates in the coinage of Allectus remains elusive. However, it is now possible to put more flesh on the discussion of some of the questions raised by Burnett,⁸⁰ bearing in mind – as ever – the potential limitations of the single-source sample.

In considering the chronology, we encounter a problem typical of those faced when studying the 'British' empire: for the C mint, where we now (I believe) have some sort of structure for the Q-radiates, there is no obvious sequence within the aureliani, almost all of which are signed S P // C, with a small group S P // CL. At London, there is a sequence for the aureliani, S P // ML followed by S A // ML and S A // MSL, but we are less sure about the QL coins. At both mints, it is possible to trace the same hands at work on the portraits for both Q-radiates and aureliani, but this is not always easy, because the larger die sizes of the latter (typically 20–21 mm) enabled the engravers to work in very different ways: a die with diameter 21 mm (to the inner pelleted circle) provides an area that is thirty-six per cent bigger than a typical Q-radiates die of 18 mm. In any case, the presence of a given engraver's work on both denominations does not in itself indicate whether these were produced at the same time, or sequentially. At C, it is noticeable that in each issue of Q-radiates the obverse dies appear to have been cut principally by four of the five hands identified, the fifth (δ for *Laetitia* and α for *Virtus*) producing less than half as many dies as the others (Table 15, p. 70).

There are in the Rogiet hoard two London Q-radiates with obverse die diameters of 20 mm and these provide at least a suggestion that at some point the two denominations were produced there at the same time (3009, 3075).

⁷⁷ Buttrely 1994.

⁷⁸ Bland 1991.

⁷⁹ These figures, though, are likely to be under-estimates, based as they are on a formula that takes no account of variable output between dies (C.S.S. Lyon, *pers. comm.*, citing Esty 1986, 203). The same method, applied to the QC/*Virtus* series, would suggest die numbers centred on 245 obverses and 406 reverses.

⁸⁰ Burnett 1984.

Burnett's comments about obverse busts at London can to some extent be quantified, both in terms of the number of varieties and the number of coins that use the three main forms – cuirassed (B1) and draped and cuirassed (D1 and D2) – as related to the proportions of QL coins using these forms.

TABLE 17. Obverse busts on London aureliani of Allectus

	Busts	Types (Burnett)	Coins			
			BM coll.	Ashmolean*	B. Latimer	Colchester
S P // ML	B1	12	6	10	7	11
	D1	11	4	7	+?	4
	D2	5	7	4	–	–
S A // ML	B1	27	31	27	10	48
	D1	11	4	5	1	27
	D2	14	5	15	4	–
S A // MSL	B1	11	13	9	6	21
	D1	2	–	1	–	–
	D2	1	–	–	1	–

*Excluding coins derived from Colchester.

The use of draped and cuirassed busts belongs almost exclusively to the periods of the first two marks (Burnett suggests 294 for the introduction of S A // ML). For QL in Rogiet, the figures are: B1: 251; D1: 25; D2: 16. If the use of these busts parallels the aureliani, this would appear to suggest that Q-radiates were introduced at London well before the end of the reign. Their relative scarcity on the Rogiet Q-radiates, however, might be an indication that the QL coins continued in production to a late stage in the reign, when B1 busts were the almost exclusive norm on London aureliani.

An aurelianus published by Lyne is of some interest in this context: this is of the S A // ML issue, with a draped-bust obverse (D1), weighing 4.03 g – but only 18 mm in diameter.⁸¹ Lyne saw this coin as transitional between the aureliani and the introduction of Q-radiates, regarding the latter as the final issues of Allectus and conflating the S A // ML and S A // MSL issues of aureliani. However, another interpretation might see this coin as an aurelianus struck on a blank for a Q-radiate and therefore evidence that the two were contemporary. The weight, to be sure, is very heavy for a Q-radiate (and presumably the reason the blank found its way into the wrong box), but three of the London Q-radiates from Rogiet are heavier. An unusually heavy QL coin (5.74 g) offered at auction in September 2005 is presumably, by the same token, a Q-radiate on a blank intended for an aurelianus.⁸²

The average weights of the Q-radiates lie around 3.0 g at both mints (see above and Appendix C). There are few good groups of well-preserved aureliani with which to compare this figure, though: forty-eight coins in the Burton Latimer hoard, a combination of 31 London and 17 C coins, reportedly averaged 4.40 g.⁸³ Aureliani of Allectus in the British Museum average 4.25 g (London, 62 coins) and 4.17 g (C, 52 coins), with no significant differences between individual marks; in the Ashmolean Museum, 4.34 g (London, 53 coins) and 4.38 g (C, 47 coins).⁸⁴ Figures for the corresponding coins in the Hunterian Museum are 4.05 g (London, 31 coins) and 4.36 g (C, 23 coins).⁸⁵ The Q-radiates therefore appear to lie between two-thirds and three-quarters of the weights of the aureliani.

There are few published analyses, and these appear to suggest that the alloys of both denominations were similar, with silver contents between one and two per cent.⁸⁶ A group of Q-radiates from Rogiet has therefore been examined, together with the three aureliani of Allectus and an example of Carausius for comparison (Appendix D). The QL and QC coins appear to be

⁸¹ Lyne 2003, 166–7.

⁸² CNG Mail Bid Sale 70, 21 September 2005, lot 1061; from the same dies as Rogiet 3277 (2.50 g).

⁸³ Bland 1984, 41.

⁸⁴ The Ashmolean figures exclude coins that are noticeably corroded or worn.

⁸⁵ Robertson 1978, 280–8.

⁸⁶ Cope *et al.* 1997, 33.

very consistent, with silver contents averaging around 1.6 per cent. Their alloys are comparable, though there is a hint in the figures that levels of tin at London are systematically higher than for C. The aureliani, however, seem to have higher levels of silver than those recorded by previous analyses. It is hard to be sure from such a small sample, but bearing in mind their relative weights, the aureliani may have been intended to contain twice as much silver by weight as the Q-radiates. More analyses of well-preserved specimens are clearly needed.

The paucity of comparative hoards containing suitably large numbers of Allectus (the vast majority end very weakly) serves to underline Burnett's caution against using them as evidence for the chronology of the Q-radiates. However, the recent (2004) Gilmorton hoard closes with two coins of Allectus: an aurelianus of the first, S P // ML, London issue and a // QL coin. Rogiet closes very weakly, as regards aureliani, both for Diocletian and Maximian and for Carausius and Allectus (the one London coin of Allectus is again S P // ML), but very strongly in the Q-radiates. Blackmoor, a very different type of hoard, comprises for Allectus predominantly Q-radiates; the few *aureliani* lack late London (S A // MSL) coins. Ewelme's twenty Q-radiates outnumber their larger counterparts by 3:1; as Blackmoor, S A // ML is the latest London issue. Of several hoards that close with a single coin of Allectus, this is a Q-radiates in at least three: Bath, Godmanchester and Pen-y-Corddyn. Of six coins of Allectus in a small deposit from Watchfield (Berks), two of the four recorded in detail are Q-radiates, the others aureliani (S P // ML and S A // ML). It would appear, in fact, that only two hoards have contained significant numbers of Allectus's aureliani: Colchester (164) and Burton Latimer (48), both late deposits that include S A // MSL coins and both of the category 'reformed coins, none before Carausius', hoards that might not be expected to contain significant numbers of Q-radiates (Colchester includes three). Most of the other hoards mentioned here are of the 'unreformed' type, with aureliani in the minority, but the presence of Q-radiates in widely-scattered deposits suggests that they were readily available during Allectus's reign.

Q-radiates are also regularly encountered as single finds and in archaeological excavations. Site finds of coins of Carausius and Allectus have been summarized by Lloyd.⁸⁷ Of sixty-two sites listed, forty-five have produced a total of 305 aureliani of Allectus (196 London, 109 C); forty sites have yielded 254 Q-radiates (103 London, 151 C). In October 2004, the database of the Portable Antiquities Scheme in England and Wales included 142 useful records of recently-found coins of Allectus: 58 aureliani and 84 Q-radiates. The latter may owe their dominance here to the fact that they are readily recognized, even when in a poor state; however, their wide distribution is again noticeable. Where mints could be identified, London aureliani formed a majority (26L: 12C) and C predominated for the Q-radiates (19L: 37C), in line with the other hoard and site evidence.

It has been suggested (above, p. 75) that Q-radiates may well have been produced at the C mint before they were made at London. The portraiture on some of these earliest QC coins is distinctly experimental, perhaps because engravers were having to adjust to the smaller die sizes. However, another explanation should perhaps be entertained: that these are some of the very first dies of the reign. If so, this could put a very different complexion upon how the Q-radiates are to be perceived.

In this context, their relationship to the aureliani is relevant. It seems to me that there is no reason to doubt Burnett's suggestion that Q-radiates were indeed half-aureliani, and therefore intended to be the equivalents of the unreformed pre-274 radiates. Whatever the precise equivalence, Rogiet is a two-denomination hoard that appears to represent a sample of the best coins available during the course of Allectus's reign – and not necessarily at the end of it. If the QC *Laetitia* series represents one of the first (if not *the* first) billon issues of Allectus, it would appear that he may have taken a robust and positive approach to his coinage from the very beginning of his reign, attempting to improve the 'radiates' element of the currency by a significant issue of the Q-radiates and, perhaps by decrying the very worst of the existing radiates, to improve the quality of those existing radiates that were to remain in circulation, as evidenced by those contained in hoards such as Rogiet and Gloucester. This is also of a piece with the more

⁸⁷ Lloyd 1998

dynamic image of Allectus as ruler that is beginning to emerge elsewhere, for instance in the ambitious building project started in 294 that has been discovered in London.⁸⁸ The choice of a distinctive and effectively uniform reverse design for the 'Q' series was presumably a deliberate way of marking out the issue as being new and significantly different from the aureliani. However, coins of uniform design were also a marked feature of Diocletian's reform in 294–5. If the Q-radiates were indeed an early initiative, then it will be clear that they would have predated Diocletian's own coinage reform or at least formed a development that was independent of it.⁸⁹ Whatever Allectus's intentions, they were soon overtaken by the reconquest of Britain, the imposition of Diocletian's currency reform and the suppression of the aureliani and Q-radiates of the 'British' empire.

Postscript

A new hoard from the reign of Allectus came to light at Elveden, Suffolk, in October 2005, too late for detailed consideration in the context of this paper. It comprises single coins of Probus and Maximian, 276 from the reign of Carausius and 349 of Allectus, thereby forming a third (and the largest recorded) example of Bland and Burnett's second category of British Empire hoards (p. 49). All but one of the coins are aureliani; there is one Q-radiate, of the C mint, and a hybrid coin that is of great interest in relation to the discussion on pp. 77–80, above. This is an aurelianus struck from an obverse die intended for Q-radiates and it provides further evidence for the simultaneous production of the two denominations. The reverse, PAX AVG (vertical sceptre), S P // [off flan], could belong at either mint; but the obverse is clearly a London die of 18mm module, type B' (hair brushed sideways at forehead) with bust D1. (This die is not represented in the Rogiet sample.) If the reverse is also of London, this new hybrid coin would appear, *prima facie*, to provide positive evidence that the Q-radiates were introduced relatively early in Allectus's reign, S P // ML being the first of the London marks; it is unfortunate that the mint signature cannot be read. I am indebted to Richard Abdy for preliminary information on the Elveden hoard during its processing under the Treasure Act 1996.

APPENDIX A: A CATALOGUE OF THE ROGIET HOARD

Obverse Busts

The obverse busts are described using the scheme originally developed for recording third-century hoards published in the *Coin Hoards from Roman Britain* series.⁹⁰ This is the first significant hoard of aureliani recorded using the scheme and three further varieties have been added (B3, J7 and L4). The following bust varieties are present in the Rogiet hoard. All refer to heads with radiate crowns (emperors) or busts with crescents behind (empresses), except as indicated. Effigies face to the right as viewed, unless indicated by a suffix '1'.

A1 head.

A3 head, with traces of drapery to front and rear of truncation.

B1 cuirassed bust, viewed from front. (B1*: head laureate)

B2 cuirassed bust, viewed from rear.

B3 cuirassed bust, viewed from front, with shield at l. shoulder.

C1 draped bust, viewed from front.

C2 draped bust, viewed from rear.

D1 draped and cuirassed bust, viewed from front.

D2 draped and cuirassed bust, viewed from rear.

E2 Empress diademed, bust draped and viewed from front; crescent behind. (E2*: no crescent)

F1 cuirassed bust, viewed from front, holding spear over l. shoulder.

F2 cuirassed bust, viewed from front, holding spear over r. shoulder.

F4 draped and cuirassed bust, viewed from front, holding spear over l. shoulder.

G1 cuirassed bust, from front, spear over r. shoulder, shield on l. shoulder.

G2 cuirassed bust from rear, spear pointing forward, shield on l. shoulder.

G3 as G2 but cuirass engraved as though viewed from front.

H1 head helmeted; cuirassed bust, viewed from front.

H4 head helmeted; cuirassed bust, from front, spear over r. shoulder, shield on l. shoulder.

H5 head helmeted; cuirassed bust, from rear, spear forward, shield on l. shoulder.

H7 head helmeted; draped and cuirassed bust, from rear, spear forward, shield on l. shoulder.

J7 cuirassed bust, viewed from front, r.h. holds *pugio*.

K1 bust in consular robes, viewed from front.

⁸⁸ Casey 1994, 133–4.

⁸⁹ An early date for the Q-radiates might also help to account for the occasional examples found on the Continent.

⁹⁰ Besly 1984.

K4 bust in consular robes, from front; r.h. holds eagle-tipped sceptre.

K5 bust in consular robes, from front; r.h. holds globe.

L2 nude bust viewed from rear; spear forward, aegis on l. shoulder.

L4 nude bust, viewed from rear; spear forward, aegis on l. shoulder, head helmeted.

N1 three jugate cuirassed busts, viewed from front.

Reverse types

With one exception (Sol) the catalogue uses the *Cunetio/CHRB* scheme (q.v.), modified to include a number of additional varieties and a few adjusted descriptions (numbers indicated in bold for both). These are mainly a consequence of the later date of Rogiet: the reverses of the aureliani were not examined in detail for the original *Cunetio* publication, since that hoard closed c.274, too early to contain them.

The treatment of Sol, however, follows throughout that of Estiot's scheme for Aurelian (*La Venèra*, Vol. II/1), which is given in full.⁹¹

Abbreviations: stg, standing; std, seated; r., right; l., left; h., hand. Right and left refer to the design as viewed, except that r.h. and l.h. refer to the right and left hands of the god or personification depicted. Where r.h. and l.h. are not specified, an attribute held in the r.h. is given before that in the left.

Abundantia

1. stg r., emptying cornucopiae held in both hands.

Aequitas

1. stg l., holding scales and cornucopiae.

Aesculapius

2b. stg facing, head l., with r.h. leaning on staff round which is entwined a snake; globe to left, by A's r. foot.

Aeternitas

1. stg facing, head l., holding phoenix on globe in r.h. and raising skirt with l.h.

2. stg facing, head l., holding globe and long rudder.

Altar

1. Altar, with flame above.

Annona

1a. stg l., holding corn ears and cornucopiae; at feet to l., the prow of a ship.

Apollo

3. stg r., aiming bow and arrow held in both hands.

5. stg l., holding branch and mantle.

6. stg l., holding branch in r.h. and leaning l. elbow on a tripod to r.

Clementia

1. stg l., legs crossed, holding vertical sceptre in r.h. and leaning l. elbow on column to r.

Concordia

1. std l., holding patera and double cornucopiae.

1a. as 1, but l.h. holds a single cornucopiae.

2. stg l., holding patera and double cornucopiae.

3. stg l., holding vertical standard in each hand.

7. std l., holding a standard in each hand.

Concordia and Sol

1. Concordia stg r., holding two standards, facing Sol stg l., r.h. raised, l.h. holding a globe.

Diana

1. stg r., holding long-handled lighted torch in both hands.

5. stg r., holding vertical spear and bow; at feet to r., a small stag(?) running r.

Eagle

1. stg r., head turned l.

2. stg l., head turned r.

Emperor

1a. on horseback riding l., raising r. arm and holding transverse sceptre in l. hand; captive on ground to l.

2. stg r., holding transverse spear and globe.

3. std l. on curule chair, holding globe and baton.

3b. as 3, but emperor veiled.

7. walking r., holding transverse spear and shield, trampling an enemy on the ground to r.

9a. on horseback riding r., emperor holds spear and shield, spearing a fallen enemy who lies on ground to r., with r. arm raised.

10a. stg l., holding globe in r. hand and long vertical sceptre in l. hand; captives seated l. and r. at his feet, both looking to r.

11. helmeted, stg l., holding globe and vertical spear (point up).

13. stg l., holding a transverse sceptre in l.h., r.h. crowns a trophy of arms; seated captive on ground to l., turning to look at emperor.

14. stg l. between two standards; r.h. raised, l.h. holding a vertical sceptre.

15. on horseback l., spearing a fallen enemy on ground to l.; shield below horse.

16. advancing r., brandishing a sword and holding a shield, attacking a fallen enemy to r.

Emperor and Concordia

1. Emperor standing r., clasping hand of Concordia standing l.

Emperor and empress

1. Emperor stg r., clasping hand of empress, who is stg l.

2. Empress stg r., l.h. holding uncertain vessel(?), r.h. grasping hand of emperor, who stands l., holding a short sceptre downwards in l.h.

Emperor and female

1. Female stg r., presenting a wreath to emperor, who stands l., holding a long sceptre in l.h.

Emperor and Jupiter

1. Emperor stg r., facing Jupiter stg l. E. holds a long vertical sceptre in r.h., l.h. outstretched; J. holds globe and long sceptre.

⁹¹ Estiot 1995, 148.

1b. Emperor stg r. facing Jupiter stg l. Emperor holds short sceptre in l.h., r.h. outstretched; J. holds globe and long sceptre. (*This corrects Cu.1a.*)

1c. As 1b. but emperor holds nothing in l.h.

Emperor and Mars

1. Mars stg r., holding spear in l.h. and presenting globe to emperor stg l., who holds a long sceptre in his l.h.

2. Mars stg r., holding victory and spear, facing emperor stg l., holding globe and long sceptre.

Emperor and Orient(?)

1. Emperor stg l., holding long sceptre in l.h., his r.h. extended to raise kneeling figure in tunic, with modius on head.

Emperor and Pietas

1. Emperor stg r., r.h. extended, l.h. holding a sceptre; Pietas stg l., r.h. extended, l.h. holding a sceptre. Between them a small altar.

Emperor and Roma

1. Emperor, togate, standing r., r.h. extended; Roma seated l., holding victory and vertical sceptre.

Emperor and soldier

1. Soldier stg r., holding long vertical sceptre and globe; emperor stg l., holding victory and transverse sceptre.

Emperor and Victory

1. Emperor stg l., holding globe and spear, crowned by Victory stg l. holding wreath and palm.

Emperors (two)

1. Two emperors stg facing one another. Each holds a shield resting on the ground; behind, two vertical spears.

2. Two emperors stg facing one another, both sacrificing over an altar placed between them. The emperor on the l. holds an eagle-tipped sceptre in his l.h., the emperor on the r. a baton.

3. Two emperors stg facing one another. The emperor on the l. holds a vertical sceptre in his r.h., l.h. outstretched; the emperor on the r. holds a Victory on globe in r.h. and transverse spear (point forward) in his l.h.

Empress

1. std l., holding branch and long transverse sceptre.

Fecunditas

1. stg l., holding patera and cornucopiae; at her feet to l. stands a small child with arms raised.

Felicitas

1. stg l., holding long vertical caduceus and cornucopiae.

1a. as 1, but r.h. holds short caduceus.

1c. as 1, but F. is standing facing, head r.

3. std l., holding short caduceus and cornucopiae.

4. stg l., holding short caduceus in r.h. and leaning l. elbow on column to r.

5. stg l., holding short caduceus and long vertical sceptre.

6. stg l., holding patera and long caduceus; altar on ground to l.

Fides

1. stg l., holding vertical standard in each hand.

2a. stg l., head r., holding vertical standard and transverse standard.

2b. stg l., head l., holding vertical standard and long transverse sceptre.

3a. stg l., holding vertical standard and long vertical sceptre.

6. stg l., holding vertical sceptre and transverse standard.

Fides and Sol

1. Fides stg r. holding two standards, facing Sol stg l., r.h. raised, l.h. holding a globe.

Fortuna

1. std l., holding rudder and cornucopiae; beneath seat, wheel.

1a. as 1, but without wheel beneath seat.

2. stg l., holding rudder and cornucopiae.

Genius

1. stg l., holding patera and cornucopiae; on ground to r., a standard

1a. as 1, but without standard.

Hercules

1. stg r., r.h. resting on hip, l.h. holding lion skin and club, which rests on a rock.

3. stg l., r.h. holding branch, l.h. holding club and lion skin.

3b. stylistic variant of 3 (Postumus).

Hercules and lion

1. Hercules stg r., wrestling Nemaean lion; club on ground to l.

Hippocamp

1. Hippocamp r.

Indulgentia

1. std l., holding corn ears and long transverse sceptre.

Juno

1. stg l., holding patera and long vertical sceptre.

1b. as 1, but peacock at feet to l.

3. std l. on throne, holding ?flower and child in swaddling clothes.

Jupiter

1. stg l., holding thunderbolt and long vertical sceptre.

1a. as 1, with small figure of emperor standing at feet to l.

1c. as 1, but at feet to l. is an eagle stg l.

2. stg l., head r., holding long vertical sceptre and thunderbolt.

6. std l., holding Victory on globe and long vertical sceptre.

7. stg l., head r., holding thunderbolt and long vertical sceptre.

9. stg l., holding Victory on globe and sceptre; eagle at feet to l.

10. stg l., head r., holding thunderbolt and vertical sceptre. At his feet to l., an eagle, l., head r.; to his r. and behind, two standards.

11. stg r., holding long vertical sceptre and thunderbolt.

Jupiter and Hercules

1. Jupiter stg r., holding thunderbolt and long sceptre, facing Hercules stg l., r.h. extended and l.h. holding club and lion skin.

Laetitia

1. stg l., holding wreath and anchor. (*Corrects Cunetio/CHRB*)

3. stg l., holding wreath and cornucopiae. (*Corrects Cunetio/CHRB*)

Mars

- 1b. walking l., holding branch in r.h. and transverse spear (point up) and shield in l.h.
- 2b. walking r., holding transverse spear (point forward) and trophy over l. shoulder.
- 2d. as 2b, but captive on ground to r.
4. stg l., holding branch in r.h. and vertical spear (point up) and shield resting on ground in l.h.
7. stg l., holding branch and vertical spear (point down); shield on ground to l.

Mercury

- 1a. stg l., holding purse and short caduceus.

Minerva

3. walking l., holding branch in r.h. and transverse spear (point up) and shield in l.h.
4. stg l., holding branch in r.h. and spear and shield (resting on ground) in l.h.

Moneta

1. stg l., holding scales and cornucopiae.

Nemesis

1. stg facing, head r., r.h. raised to head, l.h. holding a long palm branch.

Neptune

2. stg l., holding small dolphin and vertical trident.

Pax

1. stg l., holding branch and transverse sceptre.
- 1b. as 1, but l.h. holds vertical sceptre.
4. running l., holding branch and long transverse sceptre.
- 4b. as 4, but holds vertical sceptre in l.h.
6. stg l., holding branch and standard.
7. stg l., holding Victory on globe and transverse sceptre.

Perpetuitas

1. stg facing, head l., holding globe and transverse sceptre, leaning l. elbow on column to r.

Pietas

4. veiled, stg l., sacrificing with r.h. over altar on ground to l., l.h. holding a box.
- 4a. as 4, but P. is diademed.
7. stg r. before altar to r., r.h. raised, l.h. holding a box of perfumes(?).

Prince

1. stg l., holding globe and vertical spear (point down).
- 1b. as 1, but P. holds long vertical sceptre in l.h.
- 2c. stg l., holding baton and transverse spear (point forward); two vertical standards to r.
- 2d. stg l., holding baton and transverse sceptre.
- 3a. stg l., holding vertical standard and long vertical sceptre.

Providentia

1. stg l., holding globe and long transverse sceptre.
- 1a. as 1, but l.h. holds cornucopiae.
2. stg l., holding baton and cornucopiae; globe at feet to l.
- 2a. as 2, but l.h. holds vertical standard.
- 2b. as 2, but l.h. holds long vertical sceptre.
3. stg l., holding baton and cornucopiae, with l. elbow leaning on column to r.; globe at feet to l.
4. stg l., holding corn ears and cornucopiae; modius on ground to l.

River god

- 1b. reclining l., head horned, r.h. resting on knee, l.h. holding pitcher and reed. Behind, to l., the forepart of a boat.

Roma

2. std l. on shield, holding Victory on globe and long vertical sceptre.

Sacrificial implements

2. Sacrificial implements: l. to r., lituus, knife, patera, jug (prominent), simpulum, sprinkler.
- 2a. as 2, with order reversed.

Salus

1. stg l., holding in r.h. a patera from which a snake rising from an altar to l. is feeding; in her l.h. S. holds a long vertical sceptre.
2. stg r. feeding snake held in r.h. from a patera held in l.h.
5. std l., feeding snake rising from altar to l. from a patera held in her r.h.; her l.h. rests on the back of her seat.
- 5a. as 5, but S. holds the patera in her l.h. and strokes the snake with her r.h.

Securitas

2. stg facing, head l., holding long vertical sceptre in r.h., with l. elbow leaning on a column to r.
- 2a. as 2, but no sceptre: r.h. raised to head.
- 2b. as 2, but r.h. holds baton instead of long sceptre.
4. stg r., legs crossed, holding r.h. to head and leaning l. elbow on column to r.

Sol

1. stg l., r.h. raised, l.h. holding a globe. (= *Cu.2*)
2. stg l., r.h. raised, l.h. holding a whip. (= *Cu.1; not represented in Rogiet*)
3. stg facing, head to l., r.h. raised, l.h. holding a globe. (= *Cu.2b/6*)
4. as 3, with a captive seated at feet to l., looking l.
5. as 1, with a captive seated at feet to l., facing S. (*not represented in Rogiet*)
6. as 3, with two captives at feet to r. and l., both looking l.
- 6a. as 6, but both captives look towards S.
7. walking/running l., r.h. raised, l.h. holding a whip. (= *Cu.3*)
8. walking/running l., r.h. raised, l.h. holding a globe; one captive seated at feet to l., looking l. (*not represented in Rogiet*)
9. walking/running l., as 8; two captives seated at feet to r. and l., both looking l.
10. walking/running l., r.h. raised, l.h. holding a whip; two captives seated at feet to r. and l., looking towards S.
11. walking/running to r., r.h. brandishing a vexillum, l.h. holding a globe surmounted by a crescent, trampling a captive facing him on the ground, r. (*not represented in Rogiet*)
12. walking/running to r., r.h. brandishing a branch, l.h. holding a bow, trampling a captive facing him on the ground, r.

Sol in quadriga

1. Sol facing in spread quadriga, r.h. raised, l.h. holds a globe and a whip.
- 1a. As 1, but no whip. (*not represented in Rogiet*)
- 1b. As 1, but Sol facing, head l. (*not represented in Rogiet*)
- 1c. As 1b, but no globe.
2. Sol in quadriga l., r.h. raised, l.h. holds a globe and a whip.
- 2a. As 2, but no globe.

Spes

1. walking l., holding flower in r.h. and raising skirt with l.h.

1a. as 1, but stg l

Temple

2. Roma std facing in hexastyle temple

Trophy

1. Trophy of arms; at each side, a bound and seated captive.

Ubertas

1. stg l., holding purse and cornucopiae.

Venus

1b. stg l., holding helmet in r. hand and long transverse sceptre in l.h.; l. elbow leans on shield which rests on ground.

2. stg l., holding helmet and long vertical spear; on the ground to l. a shield rests against her legs.

3. std l., r. arm outstretched to small child standing at her feet to l., looking up at her; V. holds a long transverse sceptre in her l.h.

5. stg l., holding apple (or globe) and long vertical sceptre.

5a. as 5, but at her feet to l. stands a small child r., with arms raised.

6. stg r., holding long vertical sceptre and small child (or cupid?).

Vesta

1a. std l., holding patera and long transverse sceptre.

Victories (two)

1. two victories stg facing one another, pinning a shield inscribed SC to a palm tree between them.

Victory

1. stg l., holding wreath and palm against l. shoulder.

2. stg l., holding shield which rests on ground and palm against l. shoulder.

3. walking l., holding wreath and palm against l. shoulder.

3a. as 3, but V. is running.

3c. as 3, but at feet to l. a bound and seated captive.

4. walking l., holding wreath and trophy over l. shoulder.

6. stg l., wings outstretched and holding a diadem or snake in both hands, between two shields.

8. running r., holding wreath and palm against l. shoulder.

9b. running l., holding wreath and palm against l. shoulder, kicking a bound and seated captive to l.

12. running r., holding wreath and trophy over l. shoulder; captives to l. and r. on ground. (= 11 + captives)

13. stg (walking?) l. on globe between two captives; she holds a wreath and a palm.

Virtus

1. stg l., holding shield which rests on ground and long vertical spear.

3b. stg r., holding long vertical spear (point up) and shield which rests on ground.

4b. stg l., holding branch and long vertical spear (point down); shield on ground to l., resting against his r. leg.

5. stg l., holding globe and long vertical spear (point down).

7a, 7a'. stg l., holding Victory and shield + spear (point up); Victory faces r. towards V. (7a) or l., away from V. (7a').

Winged horse

2. prancing r.

Standard References

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Catalogue conventions

The hoard comprises 3,813 coins, of which 3,778 coins were acquired as treasure through the Department for Culture, Media and Sport in 1999 (NMW accession number 99.31H, sub-numbered 1–3778). A further 35 coins, found before implementation of the Treasure Act 1996, have been recorded, shown by three finders; of these, NMW has since acquired six: 2000.7H/1–5 and 2002.14H. Accordingly, since a single numbered sequence is not practicable without the likelihood of confusion with the Museum's accession numbers, the main catalogue is numbered by type (variety), following the precedents of hoard publications such as Cunetio and Normanby. An asterisk against a catalogue number indicates that the type is illustrated; an obelisk indicates a catalogue note. References to catalogue entries in the main text are in **bold**. Weights given in *italics* indicate coins that have not been cleaned.

Appendix B lists in fuller detail the 749 Q-radiates of Allectus acquired by NMW, study of which forms the basis of pp. 62–80, above. These are listed by their accession sub-numbers, references to which are given in *italics*. Some numbers appear out of sequence, resulting from adjustments to the original listing when this material was re-examined for the purposes of publication. The most substantial movements are cross-referenced. The letters 'u' and 'c' adjacent to some weights signify 'uncleaned' and 'significantly corroded', respectively.

Numbering of the plates follows the principles above. Pls 3-15 and the counterfeits (Pl. 25) are numbered as catalogue types: coins of Allectus (Pls 16-25) by their museum accession sub-numbers. In Pls 16-25, the only die links indicated are those for which both coins are illustrated, with link references to be read as '3XXX'. Considerations of space have precluded the illustration of all dies and linked specimens as well as many fine specimens of the aureliani.

<i>Cat. No</i>		<i>Marks</i>	<i>Bust</i>	<i>RIC</i>	<i>Qty</i>	<i>Weight</i>
A: CENTRAL EMPIRE TO 270						
VALERIAN I						
Rome (7)						
	<i>obv.</i> IMP C P LIC VALERIANVS AVG			<i>Cunetio</i>		
*1	APOLINI PROPG	Apollo 3	D1	437	74	2 3.35, 2.75
2	FIDES MILITVM	Fides 1	D1	441	89	2 2.94, 2.43
3	VICTORIA AVGG	Victory 1	D1	447	125	1 3.11
	<i>obv.</i> IMP C P LIC VALERIANVS PF AVG					
4	PM TR P V COS IIII PP	Emperor 3	D1	493	142cv	1 2.76
5	VICTORIA AVGG	Victory 2	D1	498	128	1 2.49
East (3)						
	<i>obv.</i> IMP C P LIC VALERIANVS AVG					
*6	VIRTVS AVGG	Emperors (two) 3	D1	845	292	1 3.48
	<i>obv.</i> IMP C P LIC VALERIANVS PF AVG					
7	VOTA ORBIS	Victories (two) 1	D1	853	295	1 3.66
	<i>obv.</i> IMP VALERIANVS AVG					
8	PM TR P V COS IIII PP	Emperors (two) 1	D1	835	277	1 3.29
GALLIENUS (Joint Reign)						
Rome (3)						
	<i>obv.</i> IMP C P LIC GALLIENVS AVG					
9	VIRTVS AVGG	Virtus 1	B1	549	181	1 2.28
	<i>obv.</i> IMP C P LIC GALLIENVS PF AVG					
10	LAETITIA AVGG	Laetitia 1	B1	566	145	1 3.56
	<i>obv.</i> IMP GALLIENVS PF AVG GERM					
†11	VICTORIA AVGG	Victory 2	B1	611	169	1 3.27
Gaul (1)						
	<i>obv.</i> GALLIENVS PF AVG					
12	VICT GERMANICA	Victory 3	B1	84	cf. 42	1 3.76
Viminacium (1)						
	<i>obv.</i> IMP GALLIENVS P AVG					
*13	SALVS AVGG	Salus 1	D2	767	397	1 3.35
East II (1)						
	<i>obv.</i> IMP C P LIC GALLIENVS PF AVG					
14	VIRTVS AVGG	Emperors (two) 3	D2	852	456	1 3.94
DIVUS VALERIAN II						
Rome (2)						
	<i>obv.</i> DIVO CAES VALERIANO					
15	CONSECRATIO	Altar 1	A3	678	24	1 3.25
16	CONSECRATIO	Altar 1	D2	680	24	1 2.60

<i>Cat. No</i>			<i>Marks</i>	<i>Bust</i>		<i>RIC</i>	<i>Qty</i>	<i>Weight</i>
53	FELICIT AVG <i>7th series</i> <i>obv. IMP GALLIENVS AVG</i>	Felicitas S	P - // -	A1	1647	474	1	2.89
54	FORT REDVX <i>obv. IMP GALLIENVS PF AVG</i>	Fortuna 1a	- - // MS	A3	1735	483	1	2.37
55	PM TR P VII COS Siscia (2) <i>obv. GALLIENVS AVG</i> <i>1st/2nd series</i>	Emperor 3b	- - // MS	A1	1752	cf455	1	3.24
56	PAX AVG running l. <i>4th series</i>	Pax 4	- - // -	A1	1798	576	1	3.23
57	PROVI AVG Antioch/East (4) <i>obv. GALLIENVS PF AVG</i>	Providentia 2	- // // -	A1	1833	580	1	3.42
58	VICTORIA AVG	Victory 3	* - // -	B1	1890	662	1	3.84
*59	VIRTVS AVG <i>obv. GALLIENVS AVG</i>	Virtus 1	* - // -	B1	-	667	1	3.17
60	VIRTVS AVGVSTI	Hercules 1	* - // -	D2	1900	673	1	3.72
61	SALVS AVG	Apollo 6	- - // PXV	B1	-	610	1	3.74
SALONINA (Sole Reign)								
Rome (7)								
<i>obv. SALONINA AVG</i> <i>Issues 1-2</i>								
62	VENVS GENETRIX	Venus 6	- VI // -	E2	993	30	1	3.22
63	VESTA <i>Issue 5</i>	Vesta 1a	- // Q	E2	987	32	1	3.75
*64	FECVNDITAS AVG	Fecunditas 1	- Δ // -	E2	1318	5	3	4.30, 3.89, 3.15
65	VENVS VICTRIX	Venus 2	- H // -	E2	1321	31	1	2.75
66	IVNO CONSERVAT	Juno 1b	- N // -	E2	1324	11	1	3.68
Milan (5)								
<i>obv. SALONINA AVG</i> <i>5th series</i>								
67	VENVS VICT <i>7th series</i>	Venus 5a	- - // -	E2	1679	66v.	1	3.34
68	AVG IN PACE <i>8th series</i>	Empress 1	- - // MS	E2	1765	58	3	3.66, 3.12, 3.06
69	IVNO AVG	Juno 3	- - // MS	E2	1785	62	1	2.70
MACRIANUS								
Eastern mint (1)								
70	<i>obv. IMP[]ACRIANVS PF AVG</i> SOLI INVICTO	Sol 1	{}? - // -	D1		12	1	3.46
CLAUDIUS II								
Rome (17)								
<i>Issue II</i> <i>obv. IMP C CLAVDIVS AVG</i>								
71	IUVI STATORI	Jupiter 2		D2	596	52	1	4.29
72	SPES PVBLICA	Spes 1		B1	611	102	1	4.19
73	VICTORIA AVG	Victory 1		B1	616	104	1	3.48
74	ANNOA AVG	Annona 1a		D2	638	18	1	3.08
75	VIRTVS AVG	Virtus 4b		A1	642	109	1	3.62
76	VIRTVS AVG	Virtus 4b		D2	645	109	1	3.55
†77	VIRTVS AVG	Virtus 4b	see note	A1	649	109	1	3.25
78	GENIVS EXERCI	Genius 1a		D2	661	48	1	2.95
79	FIDES EXERCI	Fides 2b		D2	693	36	1	3.06

Normanby

<i>Cat. No</i>		<i>Marks</i>	<i>Bust</i>		<i>RIC</i>	<i>Qty</i>	<i>Weight</i>
80	PROVIDENT AVG <i>Issue IV</i> <i>obv.</i> IMP CLAVDIVS AVG	Providentia 3	B1	705	91	1	3.74
81	VIRTVS AVG	Virtus 1	- B II -	A1	923	111	1 3.83
82	PM TR P II COS PP	Emperor 2	- - II - (?)	A1	932ff.	12	1 2.78
83	PM TR P II COS PP	Emperor 2	- - II -	A1	932	12	1 2.74
84	FORTVNA REDVX	Fortuna 2	- - II Z	A1	957	41	1 2.71
*85	MARTI PACIFERO	Mars 1b	- X II -	A1	-	-	1 3.81
86	LAETITIA AVG	Laetitia 1	- XII II -	B1	997	56	1 3.46
87	LAETITIA AVG	Laetitia 1	- - II XII	A1	999	56	1 3.20
Milan (5)							
	<i>obv.</i> IMP CLAVDIVS P F AVG <i>Issue I</i>						
*188	SPES PVBLICA	Spes 1	- - II P	D2	1005	168	1 4.18
89	VICTORIA AVG	Victory 8	- - II S	D2	1008	171	1 3.36
90	FELIC TENPO <i>Issue II</i>	Felicitas 5	- - II T	D2	1015	145	1 2.79
91	VIRTVS AVG <i>Issue III</i>	Mars 2b	- - II P	D2	1020	172	1 3.57
92	DIANA LVCI F	Diana 1	- - II P	D2	1037	144	1 3.47
Siscia (4)							
	<i>obv.</i> IMP CLAVDIVS AVG <i>Issue II b</i>						
*93	SPES AVG <i>Issue III a</i>	Spes 1	- II II -	D2	-	191	1 3.72
94	LAETITIA AVG	Laetitia 3	- I II -	B1	-	181	1 3.53
95	SPES AVG	Spes 1a	- I II -	B1	1083	-	1 4.37
96	SPES AVG	Spes 1a	II - II -	B1	1086	-	1 3.52
Cyzicus (2)							
	<i>obv.</i> IMP C M AVR CLAVDIVS AVG						
*97	VICTORIAE GOTHIC <i>obv.</i> IMP CLAVDIVS PF AVG	Trophy 1	- - II SPQR	D2	-	251	1 4.90
*98	FORTVNA REDVX	Fortuna 2	- - II SPQR	D2	-	234	1 3.87
DIVUS CLAUDIUS							
Rome (6)							
	<i>obv.</i> DIVO CLAUDIO						
99	CONSECRATIO	Altar 1		A1	2313	259	4 3.32, 3.08, 2.90, 2.79
*100	CONSECRATIO	Eagle 2		A1	2314	266	2 3.31, 2.42
QUINTILLIUS							
Rome (8)							
	<i>obv.</i> IMP C M AVR CL QVINTILLVS AVG						
101	PAX AVGVSTI	Pax 1	A - II -	D1	1146	26	1 3.03
102	VICTORIA AVG	Victory 8	- I II -	D1	1152	33	1 2.84
103	VICTORIA AVG	Victory 8	- - II I	D1	1153	33	1 3.38
*104	FIDES MILITVM	Fides 3a	- E II -	D1	1165	18	1 3.46
105	AETERNIT AVG	Sol 1	N - II -	D2	1186	7	1 3.10
106	SECVRIT AVG	Securitas 2b	- XI II -	D1	1197	31	2 3.55, 3.38
107	SECVRIT AVG	Securitas 2b	- XI II -	D2	1198	31	1 2.44
B: GALLIC EMPIRE, 260-74							
POSTUMUS							
Mint I (Trier) (34)							
	<i>obv.</i> IMP C POSTVMVS PF AVG <i>Series Ib</i>						
108	SALVS PROVINCIARVM	River god 1b		D1	2372	123	2 3.37, 3.18
109	VICTORIA AVG	Victory 9b		D1	2375	125	1 4.65

Cunetio *Elmer*

Cat. No			Marks	Bust	Elmer	Qty	Weight
Series 1c							
110	FIDES MILITVM	Fides 1		D1	2386	133	1 3.13
111	FIDES MILITVM	Fides 1		D1	2386	189	1 2.87
112	PM TR P COS II PP	Emperor II		D1	2387	185	1 3.16
Series 2b							
113	HERC PACIFERO	Hercules 3b		D1	2395	299	1 2.43
114	VIRTVS AVG	Virtus 3b		D1	2400	190	1 3.47
Series 3a							
115	MONETA AVG	Moneta 1		D1	2404	336	1 3.57
Series 3b							
116	MONETA AVG	Moneta 1		D1	2413	336	3 4.22, 2.78, 2.64
117	PROVIDENTIA AVG	Providentia 1		D1	2415	337	3.11
Series 4aii							
*118	VIRTVS AVG	Virtus 9		D1	2427	291	1 3.45
*†119	SALVS AVG	Aesculapius 2b		D1	-	415v	1 3.09
Series 4bi							
120	SERAPI COMITI AVG	Serapis 2a		D1	2437	383	1 3.95
Series 4bii							
121	VBERTAS AVG	Uberitas 1		D1	2440	394a	1 3.65
Series 5							
122	PAX AVG	Pax 1		D1	2450	565	2 4.24, 2.73
123	ORIENS AVG	Sol 7		D1	2451	569	1 3.09
Series 6							
124	PAX AVG	Pax 1	P - // -	D1	2453	566	5 3.39, 3.04, 2.96, 2.83, 2.64
125	ORIENS AVG	Sol 7	P - // -	D1	2454	568	4 3.24, 3.18, 3.10, 2.75
126	COS IIII	Nemesis 1		D1	2455	586	4 3.55, 3.16, 2.95, 2.75
Series 7							
127	IMP-X- COS-V-	Nemesis 1		D1	2462	597	1 3.24
Cologne (3)							
Series 1							
obv. IMP C POSTVMVS PF AVG							
128	IOVI VICTORI	Jupiter 7		D1	2468	571	3 3.39, 2.64, 2.52
Milan (1)							
Issue 5							
obv. IMP C POSTVMVS PF AVG							
129	SALVS AVG	Aesculapius 2	- - // P	D1	2496	618	1 3.34
LAELIAN							
Mint II (Cologne?) (3)							
obv. IMP C LAELIANVS PF AVG							
*†130	VICTORIA AVG	Victory 8		D1	2501	625	3 3.55, 3.34, 2.81
MARIUS							
Mint I (1)							
obv. IMP C MARIVS PF AVG							
*131	SAEC FELICITAS	Felicitas 1a		D1	2505	634	1 3.13
VICTORINUS							
Mint I (32)							
Elmer							
Issue 2							
obv. IMP C PIAV VICTORINVS PF AVG							
132	PAX AVG	Pax 1	V * // -	D1	2518	651	1 2.73
133	FIDES MILITVM	Fides 1	- - // -	D1	2522	654	2 3.01, 2.66
Issue 3b							
obv. IMP C VICTORINVS PF AVG							
134	PAX AVG	Pax 1	V * // -	D1	2530	682	10 4.31, 3.62, 3.35, 3.11, 3.09, 2.87, 2.86, 2.83, 2.79, 2.33

<i>Cat. No</i>			<i>Marks</i>	<i>Bust</i>	<i>Elmer</i>	<i>Qty</i>	<i>Weight</i>
135	INVICTVS	Sol 7	* - // -	D1	2534	683	11 5.08, 3.96, 3.60, 3.32, 3.23, 2.98, 2.75, 2.66, 2.16, 2.15, 1.97
	obv. IMP C VICTORINVS PF AVG						
136	PAX AVG	Pax 1	V * // -	D1	2538	682	1 2.36
137	INVICTVS	Sol 7	* - // -	D1	2539	683	1 1.96
	Issue 3c						
	obv. IMP C VICTORINVS PF AVG						
†138	PAX AVG	Pax 1	V * // -	D1	2543	682	1 3.35
†139	INVICTVS	Sol 7	* - // -	D1	2545	683	3 3.10, 3.09, 2.43
	obv. IMP C VICTORINVS PF AVG						
*140	PAX AVG	Pax 1	V * // -	D1	2547	682	1 3.00
†141	INVICTVS	Sol 7	* - // -	D1	2548	683	1 3.10
	Mint II (29)						
	Issue 1b						
	IMP C PI VICTORINVS AVG						
†142	AEOVITAS AVG	Aequitas 1		B1	2561	701	1 3.37
	Issues 1:2 mule						
	IMP C VICTORINVS PF AVG						
143	AEOVITAS AVG	Aequitas 1		B1	2566	-	1 3.48
	Issue 2						
144	SALVS AVG	Salus 2		B1	2567	732	20 4.94, 4.05, 3.70, 3.61, 3.54, 3.50, 3.46, 3.37, 3.33, 3.29, 3.23, 2.92, 2.87, 2.79, 2.70, 2.65, 2.51, 2.44, 2.09, 1.94
	Issue 3						
145	PIETAS AVG veiled	Pietas 4		B1	2571	741	2 4.64, 3.77
*146	PIETAS AVG veiled	Pietas 4		GH	-	742	1 3.99
147	PIETAS AVG diademed	Pietas 4a		B1	2572	741	2 2.90, 2.65
	Issue 4						
*148	VICTORIA AVG	Victory 3a		B1	2575	744	2 4.91, 2.32
	TETRICUS II						
	Mint I (2)						
	C PIV ESV TETRICVS CAES						
*149	SPES AVGG	Spes 1		C2	1533	791	2 3.11, 3.09
	C: CENTRAL EMPIRE, 270-93						
	AURELIAN AND SEVERINA						
	Lyon (6)						
	Issue 1						
	obv. IMP C AVRELIANVS AVG						
150	PACATOR ORBIS	Sol 7	- - // C L	B1	3	6	2 4.05, 3.34
	obv. SEVERINA AVG						
151	CONCORD MILIT	Concordia 1a	- - // B L	E2	2	1	1 3.78
152	CONCORD MILIT	Concordia 1a	- - // D L	E2	4	1	1 4.10
	Issue 3						
	obv. IMP C AVRELIANVS AVG						
*153	PACATOR ORBIS	Sol 7	- - // A L	B1	7	6	1 4.22
	obv. SEVERINA AVG						
*154	CONCORD MILIT	Concordia 1a	- - // D L	E2	10	1	1 3.31
	Rome (63)						
	Issue 2						
	obv. IMP AVRELIANVS AVG						
155	SOLI INVICTO	Sol 3	- - // Δ	B1	65	54	1 3.78

Cat. No			Marks	Bust		RIC	Qty	Weight
Issue 3								
obv. IMP AVRELIANVS AVG								
156	PAX AVGVSTI	Pax 4b	- - // B	B1	113	51	1	3.55
Issue 4								
obv. IMP AVRELIANVS AVG								
157	VIRT MILITVM	Emperor and soldier 1	- - // T	B1	142	56	1	3.20
158	VIRT MILITVM	Emperor and soldier 1	- - // Q	B1	155	56	1	3.53
Issue 6								
obv. IMP AVRELIANVS AVG								
*159	ORIENS AVG	Sol 4	- - // P	B1	283	-	4	4.82, 4.03, 3.77, 3.52
160	ORIENS AVG	Sol 4	- - // S	B1	296	-	2	4.47, 3.70
161	ORIENS AVG	Sol 4	- - // T	B1	308	-	2	4.71, 4.09
obv. AVRELIANVS AVG								
162	ORIENS AVG	Sol 4	- - // S	B1	409	-	2	4.72, 3.68
163	ORIENS AVG	Sol 4	- - // T	B1	444	-	1	3.41
164	ORIENS AVG	Sol 4	- - // V	B1	506	-	1	3.63
165	ORIENS AVG	Sol 4	- - // VI	B1	543	-	6	4.39, 3.82, 3.58, 3.55, 3.50, 3.33
Issue 7								
obv. IMP AVRELIANVS AVG								
166	ORIENS AVG	Sol 9	- - // S	B1	587	62	2	4.41, 3.92
167	ORIENS AVG	Sol 9	- - // Q	B1	612	62	1	4.47
168	ORIENS AVG	Sol 9	- - // V	B1	622	62	1	3.83
169	ORIENS AVG	Sol 9	- - // [VI]	B1	643	62	1	4.32
170	ORIENS AVG	Sol 9	- - // VI	B1	643	62	3	4.02, 4.00, 3.68
171	ORIENS AVG	Sol 9	- - // VII	B1	672	62	1	3.15
172	ORIENS AVG	Sol 9	- - // VIII	B1	686	62	2	4.58, 4.38
173	ORIENS AVG	Sol 9	- - // VIII	B1	696	62	2	4.39, 4.36
174	ORIENS AVG	Sol 9	- - // X	B1	710	62	1	3.98
obv. IMP C AVRELIANVS AVG								
175	ORIENS AVG	Sol 9	- - // VII	B1	735	61	1	3.82
Issue 8								
obv. IMP AVRELIANVS AVG								
176	ORIENS AVG	Sol 9	- Q // XXI	B1	785	62	1	3.80
Issue 9								
obv. IMP AVRELIANVS AVG								
177	ORIENS AVG	Sol 9	- - // AXXI	B1	861	62	1	3.18
178	ORIENS AVG	Sol 9	- - // ΔXXI	B1	913	62	3	4.26, 3.82, 3.78
179	ORIENS AVG	Sol 9	- - // EXXI	B1	933	62	1	3.44
*†180	ORIENS AVG	Sol 9	- - // ZXXI	B1	966	62	1	4.91
181	ORIENS AVG	Sol 6	- - // XXIc	B1	-	63	1	3.43
Issue 10								
obv. IMP AVRELIANVS AVG								
*182	ORIENS AVG	Sol 6a	- - // AXXIR	B1	1008	63	1	4.11
183	ORIENS AVG	Sol 6a	- - // ΔXXIR	B1	1049	63	1	2.69
obv. SEVERINA AVG								
184	CONCORDIA AVGG	Emperor and empress 2	- - // cXXIR	E2	1082	3	1	4.41
denarius								
obv. SEVERINA AVG								
185	VENVS FELIX	Venus 5	- Γ // VSV	E2	1103	6	1	2.95
Issue 11								
obv. IMP AVRELIANVS AVG								
*186	ORIENS AVG	Sol 12	Γ - // XXIR	B1	1167	64	2	4.51, 2.80
187	ORIENS AVG	Sol 12	Δ - // XXIR	B1	1204	64	1	4.46
188	ORIENS AVG	Sol 12	II - // XXIR	B1	1293	64	1	3.71
189	ORIENS AVG	Sol 12	* - // XXIR	B1	1321	64	1	3.31
190	ORIENS AVG	Sol 12	I - // XXIR	B1	1333	64	1	3.56
obv. SEVERINA AVG								
*191	CONCORDIAE MILITVM	Concordia 3	- A // XXIR	E2	1356	4	2	4.27, 3.31
denarii								
obv. IMP AVRELIANVS AVG								
192	VICTORIA AVG	Victory 3c	- - // B	B1	1503	73	2	2.48, 2.19

<i>Cat. No</i>		<i>Marks</i>	<i>Bust</i>	<i>RIC</i>	<i>Qty</i>	<i>Weight</i>
	<i>obv. SEVERINA AVG</i>					
193	VENVS FELIX	Venus 5 -- // T	E2	1504	6	3 2.83, 2.78, 1.71
194	VENVS FELIX	Venus 5 -- // E	E2	1510	6	1 2.48
	Milan (135)					
	<i>Issue 2</i>					
	<i>obv. IMP AVRELIANVS AVG</i>					
195	CONCORD LEGI	Concordia 3 -- // [P]?	D1	1580	117	1 2.74
*196	IOVI CONSERVATORI	Emperor and Jupiter 1c -- // P	D1	1623	131	1 4.53
197	IOVI CONSERVATORI	Emperor and Jupiter 1b -- // P	D1	1630	131	1 4.14
198	RESTITVT ORIENTIS	Emperor and female 1 -- // P	D1	1637	140	1 3.77
*199	CONCORDIA AVG	Emperor and Concordia 1 -- // S	D1	1667	119	1 2.93
200	VIRTVS MILITVM	Emperor and soldier 1 -- // T	D1	1738	147	1 3.38
*201	VICTORIA AVG	Victory 8 -- // -	D1	1777	143v	1 3.54
202	VICTORIA AVG	Victory 8 -- // T	D1	1778	143	1 3.12
	<i>Issue 3</i>					
	<i>obv. IMP AVRELIANVS AVG</i>					
203	FORTVNA REDVX	Fortuna 1 -- // P	B1	1833	128	6 4.42, 4.34, 3.10, 2.96, 2.87, 2.67
204	FORTVNA REDVX	Fortuna 1 -- // S	B1	1902	128	4 4.04, 3.42, 3.33, 3.28
205	FORTVNA REDVX	Fortuna 1 -- // T	B1	1973	128	4 4.88, 3.91, 3.49, 2.72
206	FORTVNA REDVX	Fortuna 1 -- // Q	B1	2061	128	3 4.24, 3.93, 2.99
207	FORTVNA REDVX	Fortuna 1 -- // ?	B1	1833ff	128	1 3.62
*208	IOVI CONSERVATORI	Emperor and Jupiter 1c -- // P	B1	2169	131	1 3.54
209	IOVI CONSERVATORI	Emperor and Jupiter 1b -- // P	B1	2178	131	3 3.90, 3.15, 3.14
210	IOVI CONSER	Emperor and Jupiter 1b -- // P	B1	2220	129	1 4.44
211	RESTITVT ORIENTIS	Emperor and female 1 -- // P	B1	2272	140	4 3.66, 3.60, 3.53, 3.17
*212	CONCORDIA MILITVM	Emperor and Concordia 1 -- // S	B1	2426	120	4 3.73, 3.67, 3.05, 2.83
*213	PIETAS AVG	Emperor and Pietas 1 -- // S	B1	2625	138	6 4.82, 3.57, 3.26, 3.23, 3.05, 2.43
214	VIRTVS MILITVM	Emperor and soldier 1 -- // T	B1	2720	147	7 4.13, 3.99, 3.71(2), 3.23, 2.81, 2.79
*215	ROMAE AETERNAE	Emperor and Roma 1 -- // Q	B1	2941	142	5 4.03, 3.91, 3.80, 3.14, 2.95
	<i>Issue 4</i>					
	<i>obv. IMP AVRELIANVS AVG</i>					
216	FORTVNA REDVX	Fortuna 1 -- // P	B1	3082	128	2 3.72, 3.28
*217	FORTVNA REDVX	Fortuna 1 -- // S	B1	3128	128	7 4.50, 3.94, 3.72, 3.68, 3.46, 3.26, 3.03
218	FORTVNA REDVX	Fortuna 1 -- // T	B1	3192	128	3 3.94, 3.42, 3.10
219	FORTVNA REDVX	Fortuna 1 -- // Q	B1	3264	128	3 3.90, 3.85, 3.68
220	FORTVNA REDVX	Fortuna 1 -- // [?]	B1	3388	128	1 3.58
221	IOVI CONSER	Emperor and Jupiter 1b -- // P	B1	3441	129	14 4.20, 4.10, 4.05, 3.72, 3.70, 3.63, 3.62, 3.61, 3.58, 3.52, 3.30, 3.25, 3.19, 2.65
222	RESTITVT ORBIS	Emperor and female 1 -- // P	B1	3705	139	3 3.45, 3.38, 2.95
223	RESTITVT ORBIS	Emperor and female 1 -- // [?]	B1	3805	139	1 3.09
224	CONCORDIA MILITVM	Emperor and Concordia 1 -- // S	B1	3815	120	9 3.89, 3.48, 3.37, 3.25, 3.11, 3.01, 2.73, 2.68, 2.29
225	PIETAS AVG	Emperor and Pietas 1 -- // S	B1	3956	138	8 4.07, 3.95, 3.68, 3.55, 3.30, 3.26, 3.06, 2.79
226	VIRT MILITVM	Emperor and soldier 1 -- // T	B1	4121	146	11 4.54, 3.66, 3.60, 3.57, 3.55, 3.54, 3.47, 3.45, 3.29, 3.26, 3.22
227	ROMAE AETER	Emperor and Roma 1 -- // Q	B1	4391	142	5 3.69, 3.61, 3.50, 3.16, 3.12

<i>Cat. No</i>			<i>Marks</i>	<i>Burst</i>	<i>RIC</i>	<i>Qty</i>	<i>Weight</i>
<i>Issue 5</i>							
<i>obv. AVRELIANVS AVG</i>							
228	ORIENS AVG	Sol 4	-- // P	B1	4581	135	3 3.99, 3.93, 3.26
229	ORIENS AVG	Sol 4	-- // T	B1	4638	135	4 4.01, 3.94, 3.93, 3.25
<i>Issue 6</i>							
<i>obv. IMP C AVRELIANVS AVG</i>							
230	ORIENS AVG	Sol 9	-- // P M	B1	4743	150	1 3.74
*231	ORIENS AVG	Sol 9	-- // T M	B1	4773	150	3 4.20, 4.15, 3.31
Ticinum (55)							
<i>Issue 1</i>							
<i>obv. IMP C AVRELIANVS AVG</i>							
232	ORIENS AVG	Sol 9	* - // QXXI	B1	4835	—	1 3.39
<i>Issue 2</i>							
<i>obv. IMP C AVRELIANVS AVG</i>							
233	ORIENS AVG	Sol 9	* - // SXXT	B1	4951	151	1 3.69
234	ORIENS AVG	Sol 9	* - // TXXT	B1	5005	151	1 4.17
*235	SOLI INVICTO	Sol 9	* - // TXXT	B1	5249	154	3 4.27, 4.25, 3.93
<i>Issue 3</i>							
<i>obv. IMP C AVRELIANVS AVG</i>							
236	ORIENS AVG	Sol 9	-- // SXXT	B1	5350	151	2 3.95, 3.35
237	ORIENS AVG	Sol 9	-- // QXXT	B1	5375	151	2 4.03, 3.26
238	SOLI INVICTO	Sol 9	-- // QXXT	B1	5424	154	1 4.12
<i>Issue 4</i>							
<i>obv. IMP C AVRELIANVS AVG</i>							
239	PROVIDEN DEOR	Fides and Sol I	-- // PXXT	B1	5438	152	7 4.58, 4.37, 4.28, 3.93, 3.76, 3.74, 3.49
240	PROVIDEN DEOR	Fides and Sol I	-- // SXXT	B1	5487	152	11 4.42, 4.23, 3.96(2), 3.93, 3.89, 3.87, 3.68, 3.62, 3.54, 3.28
241	PROVIDEN DEOR	Fides and Sol I	-- // TXXT	B1	5548	152	2 3.58, 3.54
242	PROVIDEN DEOR	Fides and Sol I	-- // QXXT	B1	5610	152	4 4.47, 4.55, 4.09, 3.95
<i>obv. SEVERINA AVG</i>							
*243	PROVIDEN DEOR	Fides and Sol I	-- // VXXT	E2	5675	9	4 5.59, 4.51, 4.29, 3.31
244	PROVIDEN DEOR	Fides and Sol I	-- // VIXXT	E2	5724	9	8 4.42, 4.31, 3.98, 3.96, 3.94, 3.74, 3.58, 3.54
<i>Issue 5</i>							
<i>obv. SEVERINA AVG</i>							
*†245	CONCORDIAE MILITVM	Concordia 3	-- // XXI	E2	5808	—	1 3.68
246	CONCORDIAE MILITVM	Concordia 3	-- // SXXT	E2	5832	8	2 3.82, 3.27
247	CONCORDIAE MILITVM	Concordia 3	-- // VIXXT	E2	5913	8	2 3.89, 3.30
*†248	CONCORDIAE MILITVM	Concordia 3	-- // IVXXT	E2	5918	8	2 4.07, 3.73
249	CONCORDIAE MILITVM	Concordia 3	-- // [?]XXT	E2	5920	8	1 3.63
Siscia (65)							
<i>Issue 1</i>							
<i>obv. IMP CAES L DOM AVRELIANVS AVG</i>							
*†250	CONCORD[IA MILI]	Concordia 7	-- // Q	D1	—	196	1 4.09
<i>Issue 2</i>							
<i>obv. IMP AVRELIANVS AVG</i>							
251	GENIVS ILLVR	Genius I	S - // -	B1	6033	223v	1 3.31
252	GENIVS ILLVR	Genius I	* - // S?	B1	6043	223	1 4.71
253	GENIVS ILLVR	Genius I	* - // S - // -	B1	6046	223v	1 3.11
<i>Issue 3</i>							
<i>obv. IMP AVRELIANVS AVG</i>							
254	FORTVNA REDVX	Fortuna I	-- // *P	B1	6057	220	1 3.94
255	FORTVNA REDVX	Fortuna I	-- // *S	B1	6107	220	2 5.54, 3.48
256	CONCORDIA AVG	Concordia I	-- // T*	B1	6240	213	1 4.01
<i>Issue 4</i>							
<i>obv. IMP AVRELIANVS AVG</i>							
257	IOVI CONSERVATORI	Emperor and Jupiter 1b	-- // *P	D1	6288	227	1 3.20
258	IOVI CONSERVATORI	Emperor and Jupiter 1b	-- // *T	D1	6322	227	1 2.39

<i>Cat. No</i>		<i>Marks</i>	<i>Bust</i>		<i>RIC</i>	<i>Qty</i>	<i>Weight</i>
259	IOVI CONSERVATOR I	Emperor and Jupiter Ib -- // *Q	D1	6333	227	1	3.02
260	VIRTVS AVG	Emperor and soldier 1 -- // *P	D1	6409	241v	1	3.49
261	VIRTVS MILITVM	Emperor and Mars 2 -- // *P	D1	6416	242	1	3.96
262	VIRTVS MILITVM	Emperor and Mars 2 -- // *S	D1	—	242	1	5.06
263	VIRTVS MILITVM	Emperor and Mars 2 -- // *Q*	D1	6428?	242	1	3.28
<i>Issue 5</i>							
<i>obv. IMP AVRELIANVS AVG</i>							
264	IOVI CONSER	Emperor and Jupiter Ib -- // *P	B1	6448	225	4	4.84, 3.63, 3.60, 3.17
*‡265	IOVI CONSER	Emperor and Jupiter Ib -- // *S	B1	6584	225	6	4.20, 4.13, 4.05, 3.86, 3.74, 3.53
‡266	IOVI CONSER	Emperor and Jupiter Ib -- // *T	B1	6692	225	1	3.65
‡267	IOVI CONSER	Emperor and Jupiter Ib -- // *Q	B1	6826	225	3	3.40, 3.34, 2.90
*‡268	IOVI CONSER	Emperor and Jupiter Ib -- // *Q	B1	—	225	1	3.91
269	VICTORIA AVG	Victory 6 -- *IT //	B1	6998	238	1	3.81
<i>Issue 6</i>							
<i>obv. IMP AVRELIANVS AVG</i>							
270	IOVI CONSER	Emperor and Jupiter Ib -- // [?]*	B1	7050	225	1	3.85
271	IOVI CONSER	Emperor and Jupiter Ib -- // *S	B1	7065	225	1	3.74
272	CONCORDIA MILITVM	Emperor and Concordia I -- // P*	B1	7201	216	1	3.64
273	CONCORDIA MILITVM	Emperor and Concordia I -- // *S	B1	7293	216	3	3.49, 3.40, 2.32
274	CONCORDIA MILITVM	Emperor and Concordia I -- // *T	B1	7440	216	5	3.99, 3.84, 3.80, 3.58, 3.32
275	CONCORDIA MILITVM	Emperor and Concordia I -- // *Q	B1	7526	216	2	4.22, 3.70
<i>Issue 7</i>							
<i>obv. IMP AVRELIANVS AVG</i>							
276	CONCORDIA MILITVM	Emperor and Concordia I -- // S*	B1	7679	244	1	3.00
277	CONCORDIA MILITVM	Emperor and Concordia I -- // T*	B1	—	244	1	2.78
278	CONCORDIA MILITVM	Emperor and Concordia I -- // *S	B1	7764	244	1	3.08
279	ORIENS AVG	Sol 6 * - // VI	B1	—	251	1	3.56
280	CONCORDIA MILITVM	Emperor and Concordia I -- // VI*	B1	8097	244	1	3.37
281	ORIENS AVG	Sol 9 * - // P	B1	8112	254	1	3.89
282	ORIENS AVG	Sol 9 * - // V	B1	8123	254	1	3.56
283	SOLI INVICTO	Sol 4 * - // Q	B1	8026	257	1	2.84
<i>Issue 8</i>							
<i>obv. IMP C AVRELIANVS AVG</i>							
284	CONCORDIA MILITVM	Emperor and Concordia I S // XXIS	B1	8176	244	1	3.59
285	CONCORDIA MILITVM	Emperor and Concordia I S // XXIT	B1	8200	244	1	4.01
286	CONCORDIA MILITVM	Emperor and Concordia I S // XXIQ	B1	8219	244	1	3.65
*287	ORIENS AVG	Sol 10 S - // XXIT	B1	8283	255	1	3.70
<i>Issue 9</i>							
<i>obv. IMP C AVRELIANVS AVG</i>							
*‡288	CONCORDIA MILITVM	Emperor and Concordia I -- // XX-I	B1	8303	244v	1	3.16
289	CONCORDIA MILITVM	Emperor and Concordia I -- // XXIP	B1	8304	244	1	3.74
290	CONCORDIA MILITVM	Emperor and Concordia I -- // XXIS	B1	8375	244	1	4.10
291	CONCORDIA MILITVM	Emperor and Concordia I -- // XX-IS	B1	8441	244	1	3.80
292	CONCORDIA MILITVM	Emperor and Concordia I -- // XXIV	B1	8595	244	1	3.93
293	CONCORDIA MILITVM	Emperor and Concordia I -- // VIXX-I	B1	—	244	1	3.75

<i>Cat. No</i>		<i>Marks</i>	<i>Bust</i>	<i>RIC</i>	<i>Qty</i>	<i>Weight</i>
294	ORIENS AVG	Sol 10	-- // XXIV	B1 8738	255	2 4.49, 4.01
295	ORIENS AVG	Sol 10	-- // XXIV	B1 8811	255	1 3.48
	'Balkan' mint (10)					
	<i>Issue 1</i>					
	<i>obv.</i> IMP AVRELIANVS AVG					
*296	IOVI CONSERVATORI	Emperor and Jupiter 1b	-- // dolphin	B1 8986	395	1 3.65
†297	CONCORDIA MILITVM	Emperor and Concordia 1	-- // [?]	B1 –	392v?	1 2.64
	<i>Issue 2</i>					
	<i>obv.</i> IMP AVRELIANVS AVG					
298	RESTITVTORIBIS	Emperor and female 1	-- // A	B1 9004	399	5 3.70, 3.48, 3.62, 3.45, 2.67
299	VIRTVS MILITVM <i>sic</i>	Emperor and soldier 1	-- // T	B1 9217	408	1 3.71
*300	IOVI CONSER	Emperor and Jupiter 1	-- // B	B1 9488	394	2 4.35, 3.46
	Serdica (6)					
	<i>Issue 4</i>					
	<i>obv.</i> IMP AVRELIANVS PF AVG					
*301	IOVI CONSER	Emperor and Jupiter 1b	-- // P	B1 9827	262v	1 3.24
	<i>obv.</i> IMP AVRELIANVS AVG					
302	IOVI CONSER	Emperor and Jupiter 1b	-- // S	B1 9834	260	2 3.60, 3.13
	<i>Issue 6</i>					
	<i>obv.</i> IMP C AVRELIANVS AVG					
303	ORIENS AVG	Sol 9	-- // P	B1 9899	278	1 3.81
	<i>obv.</i> IMP AVRELIANVS AVG					
304	ORIENS AVG	Sol 9	-- // S	B1 9921	279	1 3.85
	<i>Issue 8</i>					
	<i>obv.</i> AVRELIANVS AVG					
*305	RESTITVTORIBIS	Emperor and female 1	* // K A A	B1 9979	290v	1 4.12
	Cyzicus (12)					
	<i>Issue 5</i>					
	<i>obv.</i> IMP AVRELIANVS AVG					
*306	CONCORD MILIT	Emperor and Jupiter 1b	-- // * C *	B1 10168	342	1 4.33
307	RESTITVTORIENTIS	Emperor and Orient(?) 1	-- // * C *	B1 10208	351	1 3.55
	<i>Issue 6</i>					
	<i>obv.</i> IMP AVRELIANVS AVG					
308	IOVI CONSER	Emperor and Jupiter 1b	-- // C * P	B1 10217	346	2 4.01, 3.85
309	RESTITVTORIENTIS	Emperor and Orient(?) 1	-- // C * P	B1 10223	351	1 4.04
	<i>Issue 8</i>					
	<i>obv.</i> IMP AVRELIANVS AVG					
310	RESTITVTOR ORBIS	Emperor and female 1	-- // -	B1 10464	348v	3 4.87, 4.00, 3.44
	<i>obv.</i> IMP C AVRELIANVS AVG					
311	ORIENS AVG	Sol 9	-- // B C	B1 10601	363	1 3.00
312	ORIENS AVG	Sol 9	-- // Γ C	B1 10608	363	1 3.65
	<i>Issue 10</i>					
	<i>obv.</i> IMP AVRELIANVS AVG					
313	RESTITVTOR EXERCITI	Emperor and Mars 1	B // XXI	B1 10733	366	1 3.68
*†314	RESTITVTOR ORBIS	Emperor and female 1	B // XXI	D2 –	369	1 4.72
	TACITUS					
	Lyon (486)					
	<i>Issue 1</i>					
	<i>obv.</i> IMP C M CL TACITVS PF AVG					
*†315	AEQVITAS AVG	Aequitas 1		B11. 23	–	1 4.00
316	PAX PVBLICA	Pax 1		D1 30	44	8 4.52, 4.05, 3.94, 3.89, 3.57, 3.27, 3.12, 2.95
317	PROVID DEOR	Providentia 2		D1 37	48	5 4.44, 4.05, 3.85, 3.62, 3.54
318	VIRTVS AVG	Virtus 1		D1 45	67	1 3.94
	<i>obv.</i> IMP C M CL TACITVS AVG					

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Cat. No			Marks	Bust		RIC	Qty	Weight
*319	AEQVITAS AVG	Aequitas 1		G11.	18	13	1	3.75
320	AEQVITAS AVG	Aequitas 1		D1	24	-	4	4.51, 4.44, 3.91, 3.86
321	VIRTVS AVG	Virtus 1		D1	47	68	6	4.45, 4.45, 4.25, 4.19, 4.08, 3.62
	obv. IMP C CL TACITVS AVG							
322	AEQVITAS AVG	Aequitas 1		D1	26	14	10	4.81, 4.77, 4.57, 4.15, 4.11, 3.97, 3.89, 3.88, 3.64, 3.36
323	PAX PVBLICA	Pax 1		D1	34	45	17	4.57, 4.40, 4.19, 4.12, 4.04, 3.99, 3.84(2), 3.75, 3.70, 3.66, 3.64, 3.57, 3.52, 3.52, 3.31, 2.86
324	PROVID DEOR	Providentia 2		D1	41	49	19	5.17, 4.77, 4.76, 4.68, 4.58, 4.57, 4.41, 4.33, 4.23, 4.07, 3.94, 3.86, 3.82, 3.73, 3.72, 3.66, 3.56, 3.44(2)
325	VIRTVS AVG	Virtus 1		D1	48	69	12	4.72, 4.59, 4.03, 4.01, 3.94, 3.90, 3.70, 3.57, 3.09, 3.02, 2.83, 2.66
	Issue 3							
	obv. IMP C M CL TACITVS AVG							
326	SPES PVBLICA	Spes 1	// CA	D1	62	-	1	3.30
327	PAX AVG	Pax 4	// DA	D1	65	-	1	4.03
	obv. IMP-CL-TACITVS-AVG							
*328	SPES PVBLICA	Spes 1	// CA	D1	Sup.63a	61	2	4.39, 3.58
	obv. IMP CL TACITVS AVG							
329	FIDES MILITVM	Fides 1	// BA	D1	57	27	17	4.97, 4.23, 4.18, 4.08, 4.03, 4.02, 4.01, 3.98, 3.96, 3.91, 3.85, 3.72, 3.66, 3.47, 3.44, 3.18(2)
*330	RESTITVTOR ORBIS	Emperor and female 1	// BA	D1	60	55	2	3.70, 3.63
331	SPES PVBLICA	Spes 1	// CA	D1	64	61	35	5.53, 4.88, 4.66, 4.64, 4.63, 4.61, 4.56, 4.51, 4.50, 4.45, 4.30, 4.17, 4.16, 4.15, 4.12, 4.12, 4.09, 4.04, 4.02, 3.91, 3.87, 3.83, 3.80, 3.79, 3.71(2), 3.68, 3.65, 3.64, 3.59, 3.57, 3.51, 3.43, 3.29, 2.89
	Issue 4							
	obv. IMP C M CL TACITVS PF AVG							
*332	FIDES MILITVM	Fides 1	// BA	D1	70	25	1	3.38
	obv. IMP C M CL TACITVS AVG							
333	TEMPORVM FELICITAS	Felicitas 1	// A-A	D1	68	64	1	3.56
*334	SPES PVBLICA	Spes 1	// CA	D1	75	-	2	4.41, 3.42
	obv. IMP CL TACITVS AVG							
*335	SPES PVBLICA	Spes 1	// CA	D1	76	-	1	3.33
	Issue 5		(A - Δ) A //					
	obv. IMP C M CL TACITVS AVG							
336	TEMPORVM FELICITAS	Felicitas 1	A	D1	77	64	3	3.93, 3.79, 3.73
337	TEMPORVM FELICITAS	Felicitas 1	Δ	D1	84	(64)	1	4.33

<i>Cat. No</i>		<i>Marks</i>	<i>Bust</i>		<i>RIC</i>	<i>Qty</i>	<i>Weight</i>
	<i>obv. IMP CL TACITVS AVG</i>						
338	TEMPORVM FELICITAS	Felicitas 1	A	D1 78	65	65	5.34, 5.21, 5.07, 4.98, 4.87, 4.86, 4.67, 4.65, 4.62, 4.59, 4.54, 4.50(2), 4.48, 4.44, 4.38, 4.37, 4.36, 4.32, 4.31, 4.28, 4.27(2), 4.25, 4.24, 4.21, 4.17, 4.17, 4.16, 4.16(2), 4.15(2), 4.13, 4.06(2), 4.01, 3.93, 3.87(2), 3.86, 3.83, 3.79, 3.69, 3.68, 3.64, 3.64, 3.62(2), 3.61, 3.59, 3.57, 3.54, 3.51(2), 3.49, 3.39, 3.36, 3.34(2), 3.09, 3.07, 3.01, 2.76, 2.70
339	SALVS AVG	Salus 2	B	D1 80	—	1	3.80
340	MARS VICTOR		B	D1 79	30	26	5.11, 4.91, 4.90, 4.57, 4.57, 4.52, 4.50, 4.23, 4.08, 4.07, 4.06, 3.97, 3.88, 3.87, 3.86(2), 3.85, 3.71, 3.68, 3.66, 3.63, 3.62, 3.58, 3.53(2), 3.41
341	MARS VICTOR	Mars 2b	C	D1 81	30	4	4.77, 4.17, 4.12, 4.04
342	PAX AVG	Pax 4	Δ	D1 83	39	2	3.71, 3.37
343	TEMPORVM FELICITAS	Felicitas 1	Δ	D1 85	65	40	4.85, 4.65, 4.55, 4.41, 4.40, 4.39(2), 4.33, 4.25(2), 4.18, 4.11, 4.10, 4.03, 3.99, 3.95, 3.94(2), 3.87, 3.82, 3.82(2), 3.76, 3.74, 3.73, 3.70, 3.67, 3.66, 3.65(2), 3.64, 3.61, 3.59, 3.54, 3.51, 3.45, 3.23, 3.20, 3.18(2)
	<i>Issue 6</i>			(A-Δ) - // -			
†344	TEMPORVM FELICITAS	Felicitas 1	A	D1 86	—	1	4.21
345	TEMPORVM FELICITAS	Felicitas 1	Δ	D1 91	—	1	4.38
	<i>obv. IMP CL TACITVS AVG</i>						
346	FELICITAS SAECVLI	Felicitas 6	C	D1 90	—	2	4.42, 3.64
	<i>Issue 7</i>			(A-Δ) * // -			
347	TEMPORVM FELICITAS	Felicitas 1	A	D1 92	63	8	4.33, 4.09, 3.90, 3.82, 3.78, 3.71, 3.42, 3.06
348	MARS VICTOR	Mars 2b	B	D1 95	29	4	4.02, 3.76, 3.52(2)
349	PAX AETERNA	Pax 1b	B	D1 97	33	5	3.73, 3.68, 3.66, 3.55, 3.40
350	SPES PVBLICA	Spes 1	B	D1 99	60	2	4.45, 4.19
351	FELICITAS SAECVLI	Felicitas 6	C	D1 101	21	9	4.23, 4.03, 4.01, 3.95, 3.87, 3.86, 3.78, 3.77, 3.42
*352	FELICITAS SAECILI	Felicitas 6	C	D1 101v	21v	1	3.47
353	TEMPORVM FELICITAS	Felicitas 1	Δ	D1 108	63	14	4.32, 4.32, 4.09, 3.95, 3.90(2), 3.88, 3.78, 3.75, 3.55, 3.53, 3.36, 3.36, 3.14

<i>Cat. No</i>		<i>Marks</i>	<i>Bust</i>		<i>RIC</i>	<i>Qty</i>	<i>Weight</i>
354	TEMPORVM FELICITAS <i>obv.</i> IMP CL TACITVS AVG	Felicitas I	[]	D1	92/108	63	1 3.78
355	TEMPORVM FELICITAS	Felicitas I	A	D1	93	65	35 4.76, 4.48, 4.43, 4.27, 4.20, 4.19, 4.14, 4.10, 4.08, 4.05, 3.99, 3.94, 3.93, 3.91, 3.90, 3.89(2), 3.85, 3.85, 3.84, 3.80, 3.78, 3.71, 3.70, 3.68, 3.60, 3.59, 3.57, 3.55, 3.55, 3.53, 3.48, 3.40, 3.08, 3.02
356	MARS VICTOR	Mars 2b	B	D1	96	30	17 4.51, 4.50, 4.44, 4.35, 4.29, 4.20, 4.11, 4.09, 4.04, 4.02, 4.01, 3.93, 3.76, 3.69, 3.63, 3.54, 3.11
357	MARS VICTOR	Mars 2b	B	D1	100	30	6 4.05, 3.94, 3.91, 3.87, 3.52, 3.28
*358	MARS VICTOR	Mars 2b	B	D1	-	-	1 3.89
359	PAX AETERNA	Pax 1b	B	D1	98	34	6 4.40, 4.18, 4.12, 3.71, 3.66, 3.39
360	FELICITAS SAECVLI	Felicitas 6	C	D1	102	24	5 4.53, 4.29, 4.03, 3.81, 3.18
361	MARS VICTOR	Mars 2b	C	D1	103	30	15 4.79, 4.78, 4.27, 4.16, 4.02, 4.00, 3.96, 3.87, 3.87, 3.81, 3.80, 3.62, 3.58, 3.34, 3.13
362	SALVS AVG	Salus 2	C	D1	106	57	9 4.62, 4.41, 4.35, 4.24, 3.85, 3.83, 3.76, 3.72, 3.68
363	SALVS PVBLICA	Salus 2	C	D1	107	58	5 4.69, 4.19, 4.08, 3.85, 3.19
*364	TEMPORVM FELICITAS	Felicitas I	A	D1	109	65	29 4.46, 4.35, 4.31, 4.28, 4.21, 4.15, 4.09, 4.01, 3.97, 3.94(2), 3.92, 3.84, 3.83, 3.80, 3.79, 3.77(2), 3.69, 3.68, 3.67, 3.59, 3.58, 3.54, 3.50, 3.41, 3.38, 3.30, 3.07
<i>Issue 7</i>							
365	TEMPORVM FELICITAS <i>obv.</i> IMP CL TACITVS AVG	Felicitas I	[] * // []	D1	?	?	1 3.69
<i>Issue 8</i>							
366	TEMPORVM FELICITAS <i>obv.</i> IMP C M CL TACITVS PF AVG	Felicitas I	I * // (I-III)	D1	110	63	5 4.03, 3.82, 3.52, 3.50, 3.39
367	MARS VICTOR	Mars 2b	II	D1	111	29	3 4.14, 3.87, 3.80
*368	PAX AETERNA	Pax 1b	III	D1	115	33	5 4.81, 4.30, 4.20, 4.01, 3.80
369	SPES PVBLICA	Spes 1	III	D1	118	60	1 3.82
370	PAX AVGVSTI walking	Pax 4	III	D1	116	43	3 3.49, 3.46, 3.41
371	PAX AVGVSTI	Pax 1	III	D1	120	-	2 3.92, 3.72
<i>Issue 9</i>							
*372	PAX AVGVSTI <i>obv.</i> IMP C M CL TACITVS PF AVG	Pax 1	- - // III	D1	123	-	1 3.39
Rome (90)							
<i>Issue 2</i>							
373	PROVIDENTIA AVG <i>obv.</i> IMP C M CL TACITVS AVG	Providentia 2	A	D1	7	92	7 4.13, 3.88, 3.69, 3.54, 3.39, 3.35, 3.28

<i>Cat. No</i>			<i>Marks</i>	<i>Bust</i>	<i>RIC</i>	<i>Qty</i>	<i>Weight</i>
374	VICTORIA AVG	Victory 1	A	D1	46	97	5 4.12, 3.98, 3.61, 3.48, 3.21
375	LAETITIA FVND	Laetitia 1	B	D1	59	89	10 4.51, 4.24, 4.16, 3.95, 3.89, 3.78, 3.78, 3.48, 3.47, 3.41
376	AEQVITAS AVG	Aequitas 1	F	D1	89	82	9 4.85, 4.79, 4.70, 4.14, 3.98, 3.79, 3.57, 3.02, 2.79
*377	SALVS AVG	Salus 1	Δ	D1	128	—	6 4.77, 4.42, 4.14, 3.96, 3.67, 3.45
378	SPES PVBLICA	Spes 1	E	D1	154	94	6 4.59, 4.33, 3.88, 3.79, 3.35, 3.28
379	SPES PVBLICA	Spes 1	- E // XXI	D1	185	94	1 2.79
380	FIDES MILITVM	Fides 1	ς	D1	190	87	8 4.76, 4.25, 3.98, 3.97, 3.89, 3.66, 3.54, 3.25
381	CLEMENTIA TEMP	Mars 1b	Z	D1	225	83	6 4.03, 3.87, 3.82, 3.70, 3.55, 2.74
*381A	CLEMENTIA TEMP <i>Issue 3</i> <i>obv. IMP C M CL TACITVS AVG</i>	Mars 1b	- Z // XXI //XXI(A)	D1	251	83	1 3.47
382	PROVIDENTIA AVG	Providentia 2	A	A3	334	92	4 4.61, 4.15, 3.71, 3.53
383	PROVIDENTIA AVG	Providentia 2	A	D1	260	92	6 4.17, 4.05, 4.00, 3.83, 3.57, 3.54
384	LAETITIA FVND	Laetitia 1	B	D1	360	89	4 4.72, 3.93, 3.77, 3.66
385	AEQVITAS AVG	Aequitas 1	F	D1	503	82	3 4.67, 3.61, 3.58
386	AEQVITAS AVG	Aequitas 1	- F // XXI	D1	549	82	1 4.06
*387	SALVS AVG	Salus 1	Δ	A3	817	(93)	1 3.57
388	SALVS AVG	Salus 1	Δ	D1	619	(93)	2 4.07, 3.95
389	VBERTAS AVG	Ubertas 1	E	D1	869	95	1 3.61
390	FIDES MILITVM	Fides 1	ς	A3	1005	87	1 3.37
391	FIDES MILITVM	Fides 1	ς	B1	992	87v	1 3.67
392	FIDES MILITVM	Fides 1	ς	D1	939	87	4 5.44, 4.36, 4.29, 4.21
393	CLEMENTIA TEMP	Clementia 1	Z	A3	1080	84	1 3.91
394	CLEMENTIA TEMP	Clementia 1	Z	D1	1033	84	2 4.10, 3.84
Ticinum (66)							
<i>Issue 1</i>			//P etc				
<i>obv. IMP C M CL TACITVS AVG</i>							
395	VICTORIA AVG	Victory 6	P	D1	1271	170	2 4.02(2)
396	VICTORIA GOTTHI	Victory 1	P	D1	1280	172	1 3.94
397	MARTI PACIF	Mars 1b	S	D1	1285	145	1 3.47
*398	SALVS AVG	Salus 5a	T	D1	1307	(158)	1 3.60
399	SALVS PVBLI	Salus 2	T	D1	1329	160	2 3.99, 3.84
400	PROVIDE AVG	Providentia 1	Q	D1	1344	152	6 4.25, 4.17, 3.88, 3.81, 3.56, 3.41
401	ROMAE AETER	Roma 2	Q	D1	1378	156	2 3.70, 3.36
402	FELICIT TEMP	Felicitas 5	V	D1	1383	140	1 4.31
403	SECVRIT PERP	Securitas 2a	VI	D1	1455	163	2 3.62, 3.30
<i>Issue 2</i>			//P etc				
<i>obv. IMP C M CL TACITVS AVG</i>							
404	VICTORIA GOTTHI	Victory 1	P	B1	1554	172	1 3.99
*405	VICTORIA GOTTHI	Victory 1	P	B11.	1559	—	1 4.05
406	PAX AVGVSTI	Pax 1	P	B1	1489	150	11 4.36, 4.17, 3.92, 3.84, 3.70, 3.68, 3.44, 3.40, 3.29, 3.12, 3.10
407	MARTI PACIF	Mars 1b	S	B1	1606	145	2 3.84, 3.76
*408	MARTI PACIF	Mars 1b	S	B11.	1640	—	1 4.38
409	MARTI PACIF	Mars 1b	S	D1	1565	145	4 4.50, 4.49, 3.95, 3.94
*410	SALVS PVBLI	Salus 2	T	B1	1671	—	3 4.43, 4.14, 3.89

<i>Cur. No.</i>		<i>Marks</i>	<i>Bust</i>		<i>RIC</i>	<i>Qty.</i>	<i>Weight</i>
411	SALVS PVBLI	Salus 2	T	D1	1642	160	2 3.74(2)
412	PROVIDE AVG	Providentia 1	Q	B1	1794	152	5 4.80, 4.35, 4.18, 3.87, 3.65
413	PROVIDE AVG	Providentia 1	Q	D1	1708	152	6 4.61, 4.55, 4.11, 3.99, 3.87, 3.60
414	FELICIT TEMP	Felicitas 5	V	B1	1880	140	3 4.23, 3.95, 3.30
*†415	FELICIT TEMP	Felicitas 5	V	B1	1923	140	1 4.43
416	FELICIT TEMP	Felicitas 5	V	D1	1854	140	4 4.52, 4.02, 3.80, 2.92
417	SECVRIT PERP	Securitas 2a	VI	B1	1950	163	3 4.61, 4.27, 3.54
418	SECVRIT PERP	Securitas 2a	VI	D1	1928	163	1 3.42
Siscia (4)							
<i>obv. IMP C M CLA TACITVS AVG</i>							
†419	AEQVITAS AVG	Aequitas 1	- P // -	D1	2012	181	1 3.63
*†420	PROVIDENTIA DEORVM	Providentia 2	-- // S	D1	2101	-	1 3.88
*†421	PAX AVG	Pax 1	-- // Q	D1	2204	-	1 4.19
<i>obv. IMP C M CL TACITVS P AVG</i>							
*†422	PAX AVGVSTI	Pax 1	- Q // -	D1	2228	-	1 4.09
Serdica (3)							
<i>obv. IMP C M CL TACITVS AVG</i>							
<i>Issue 1/2</i>							
*†423	CONSERVATOR MILITVM	Emperor and Mars 1	S // K A	C1	-	-	1 3.99
<i>Issue 3</i>							
424	PROVIDEN DEOR	Fides and Sol 1	-- // KAΔ	A3	2403	-	1 3.39
<i>obv. IMP C M CL TACITVS P AVG</i>							
<i>Issue 3</i>							
†425	PROVIDEN DEOR	Fides and Sol 1	-- // KAΔ	D1	2404	-	1 4.14
FLORIAN							
Lyon (31)							
<i>Issue 1</i>							
<i>obv. IMP C M AN FLORIANVS PF AVG</i>							
426	TEMPORVM FELICITAS	Felicitas 1c	-- // -	D1	124	-	1 3.55
*†427	VIRTVS AVGVSTI	Mars 2b	-- // -	D1	128	-	1 4.08
428	PACATOR ORBIS	Sol 7	-- // -	D1	129	7	1 3.33
429	AETERNITAS AVG	Aeternitas 2	-- // -	D1	131	2	1 3.48
<i>Issue 2</i>							
<i>obv. IMP C M AN FLORIANVS PF AVG</i>							
430	TEMPORVM FELICITAS	Felicitas 1c	-- // I	D1	134	11	1 4.21
431	VIRTVS AVGVSTI	Mars 2b	-- // II	D1	136	14	5 4.39, 4.14, 3.63, 3.55, 3.43
432	PACATOR ORBIS	Sol 7	-- // III	D1	137	7	3 4.02, 3.79, 3.43
433	AETERNITAS AVG	Aeternitas 2	-- // IIII	D1	141	2	7 4.16, 4.15, 4.15, 4.12, 3.81, 3.76, 3.48
<i>Issue 3</i>							
<i>obv. IMP C M AN FLORIANVS AVG</i>							
434	TEMPORVM FELICITAS	Felicitas 1c	-- // I	D1	146	12	1 3.68
435	VIRTVS AVGVSTI	Mars 2b	-- // II	D1	147	15	4 4.98, 4.25, 4.03, 4.01
436	PROVIDENTIA AVG	Providentia 2b	-- // III	D1	148	10	3 4.72, 4.42, 3.78
*437	VIRTVS AVGVSTI	Emperor 7	-- // IIII	D1	150	16	3 3.93, 3.66, 3.43
Rome (5)							
<i>obv. IMP C FLORIANVS AVG</i>							
438	PROVIDENTIA AVG	Providentia 2	-- // XXIA	D1	2439	37	1 3.81
439	LAETITIA FVND	Laetitia 1	-- // XXIB	D2	2475	34	1 3.71
*440	SALVS AVG	Salus 1	-- // XXIA	D1	2518	40	1 3.95
441	FIDES MILIT	Fides 2a	-- // XXIE	D1	2554	30	1 3.68
442	FIDES MILIT	Fides 2a	-- // XXIE	D2	2563	30	1 2.94

<i>Cat. No</i>		<i>Marks</i>	<i>Bust</i>		<i>RIC</i>	<i>Qty</i>	<i>Weight</i>
Siscia (4)							
<i>obv. IMP C M AN FLORIANVS P AVG</i>							
†443	FELICITAS AVG	Felicitas 6	- - // P	C2	2711	—	1 3.40
*†444	PROVIDEN DEOR	Fides and Sol I	- - // T	B1	—	—	1 3.92
†445	FELICITAS AVG	Felicitas 6	- - // V	D1	2843	61	1 3.90
*†446	PROVIDE AVG	Providentia I	- - // V	D1	2885	82	1 3.74
PROBUS							
Lyon (856)							
<i>Issue 1</i>							
<i>obv. IMP C M AVR PROBUS AVG</i>							
*447	TEMPORVM FELICITAS	Felicitas 1c	- - // I	B1	151	52	7 4.67, 4.33, 4.28, 4.24, 3.74, 3.72, 3.38
*448	VIRTVS AVGVSTI	Mars 2b	- - // II	B1	152	58	6 4.29, 4.18, 4.09, 3.97, 3.86, 3.84
*449	PROVIDENTIA AVG	Providentia 2b	- - // III	B1	153	47	2 4.07, 4.00
450	VIRTVS AVGVSTI	Emperor 7	- - // IIII	B1	155	56	4 3.97, 3.63, 3.47, 3.42
<i>Issue 2</i>							
<i>obv. IMP C M AVR PROBUS AVG</i>							
*451	ORIENS AVG	Sol 9	- - // I	B1	164	44	12 5.72, 5.57, 5.07, 4.31, 4.30, 4.12, 3.95, 3.83, 3.80, 3.59, 3.56, 2.93
*452	SECVRTAS ORBIS	Securitas 2	- - // I	B1	165	49	5 4.22, 4.12, 3.95, 3.86, 3.75
453	MARS VICTOR	Mars 2b	- - // II	B1	166	37	20 4.71, 4.66, 4.55, 4.49, 4.43, 4.24, 4.21, 4.19, 4.15, 4.13, 4.03, 4.01, 3.92, 3.89, 3.82, 3.77, 3.75, 3.58, 3.49, 3.01
454	MARTI PACIFERO	Mars 7	- - // II	B1	167	42	3 3.31, 3.22, 3.20
455	FIDES MILITVM	Fides I	- - // III	B1	168	28	19 5.04, 4.70, 4.68, 4.51, 4.39, 4.37, 4.36, 4.10, 3.90, 3.89, 3.86, 3.85, 3.84, 3.79, 3.77, 3.76, 3.54, 3.24, 3.17
456	ORIENS AVG	Sol 12	- - // III	B1	169	45	4 4.39, 4.31, 3.99, 3.66
*457	PROVIDENTIA AVG	Providentia 1a	- - // III	B1	171	46	5 4.32, 4.28, 4.21, 3.87, 3.70
458	LAETITIA AVGVSTI	Laetitia 1	- - // IIII	B1	172	31	22 4.54, 4.45, 4.34, 4.20, 4.15, 4.14, 4.06, 4.02, 4.01, 4.00, 3.99, 3.97, 3.93, 3.88, 3.86, 3.76, 3.75(2), 3.65, 3.63, 3.62, 3.53
<i>Issue 3</i>							
<i>obv. IMP C M AVR PROBUS AVG</i>							
*459	TEMPORVM FELICITAS	Felicitas 1c	- - // I	B1	176	52	16 5.62, 5.05, 4.45, 4.35, 4.11, 4.11, 4.09, 4.08, 3.95, 3.93, 3.86, 3.81, 3.67, 3.58, 3.52, 3.52
460	MARS VICTOR	Mars 2b	- - // II	B1	179	37	24 5.56, 4.70, 4.47, 4.45, 4.29, 4.27, 4.18, 4.17, 4.09, 4.05, 4.04, 3.97, 3.85(2), 3.83, 3.82, 3.80, 3.77, 3.73, 3.68, 3.58, 3.54, 3.52, 3.40

<i>Cat. No</i>			<i>Marks</i>	<i>Bust</i>		<i>RIC</i>	<i>Qty</i>	<i>Weight</i>
461	FIDES MILITVM	Fides I	-- // III	B1	180	28	8	4.79, 4.70, 4.34, 4.23, 3.94, 3.74, 3.60, 3.21
462	MARS VICTOR	Mars 2b	-- // III	B1	181	37	1	3.74
*463	LAETITIA AVGVSTI	Laetitia I	-- // III	B1	182	31	24	5.28, 5.01, 4.51, 4.48, 4.37, 4.29, 4.22(2), 4.18, 4.17, 4.16, 4.11, 4.04, 3.90, 3.87, 3.83, 3.82, 3.71, 3.65, 3.54, 3.43, 3.37, 3.30, 3.06
Issue 4 <i>obv</i> IMP C PROBVS-PPF-AVG								
*464	ORIENS AVG	Sol 9	-- // I	B1	-	-	1	3.95
465	TEMPORVM FELICITAS	Felicitas Ic	-- // I	B1	186	53	10	5.06, 4.68, 4.17, 4.07, 4.06, 4.04, 4.03, 3.92, 3.85, 3.49
*466	TEMPOR FELICI	Felicitas Ic	-- // I	B1	188	104	44	5.54, 4.74, 4.65, 4.59, 4.58, 4.51, 4.41(2), 4.38, 4.26, 4.21(2), 4.20, 4.08, 4.03, 4.01, 3.93, 3.92(2), 3.90, 3.82, 3.80, 3.78, 3.73, 3.71, 3.67, 3.66, 3.62, 3.57(2), 3.52, 3.47(3), 3.45, 3.44, 3.37, 3.35, 3.34, 3.30, 3.27, 3.23, 3.10, 2.95
*467	MARS VICTOR	Mars 2b	-- // II	B1	190	38	73	4.85, 4.81, 4.74, 4.72, 4.66, 4.61, 4.57, 4.56(2), 4.54, 4.48, 4.47, 4.42, 4.40, 4.38, 4.30(3), 4.28, 4.28, 4.25, 4.24(3), 4.19, 4.14, 4.10, 4.06, 4.04(2), 4.02, 4.00, 3.99, 3.94, 3.91(2), 3.90, 3.90(2), 3.87, 3.86(2), 3.84, 3.83, 3.80(2), 3.78, 3.73, 3.72, 3.69, 3.68, 3.64(2), 3.63, 3.62, 3.62, 3.61, 3.60, 3.56(2), 3.55, 3.52, 3.48, 3.45, 3.40, 3.36, 3.37, 3.33(2), 3.29, 3.24, 3.15, 3.14
468	MARS VICTOR	Mars 2b	-- // [?]	B1	190/4	38	2	4.66, 3.93
*469	FIDES MILITVM	Fides I	-- // III	B1	192	29	20	4.62, 4.49, 4.44, 4.43, 4.25, 4.11, 4.07, 4.01, 3.91, 3.90, 3.89, 3.88, 3.83, 3.71, 3.69, 3.64, 3.63, 3.61, 3.42(2)
470	MARS VICTOR	Mars 2b	-- // III	B1	194	38	28	5.02, 5.02, 4.84, 4.41, 4.34, 4.29, 4.25, 4.19, 4.06, 4.05, 4.03, 3.98, 3.87, 3.86, 3.72, 3.72, 3.71, 3.65, 3.56, 3.54, 3.53, 3.52, 3.44, 3.43, 3.39, 3.30, 3.13, 2.87

<i>Cat. No</i>		<i>Marks</i>	<i>Bust</i>	<i>RIC</i>	<i>Qty</i>	<i>Weight</i>
*471	ABUNDANTIA AVG	Abundantia 1	-- // III	B1 195	17	51 4.97, 4.87, 4.68, 4.62, 4.58, 4.56(2), 4.51, 4.50, 4.49, 4.47, 4.37, 4.33, 4.29, 4.29, 4.28, 4.27, 4.25, 4.25, 4.23, 4.06, 4.04, 4.03, 4.02, 4.01, 4.00, 4.00, 3.93, 3.92, 3.91, 3.88, 3.86, 3.83(2), 3.82, 3.81, 3.78(3), 3.71, 3.69, 3.68, 3.68, 3.67, 3.63, 3.51, 3.49, 3.47, 3.39, 3.38, 3.25
472	LAETITIA AVG VSTI	Laetitia 1	-- // IIII	B1 198	32	11 4.51, 4.12, 4.00, 3.99, 3.75, 3.74, 3.70, 3.63, 3.54, 3.47, 3.25
<i>Issue 5</i>						
*†473	obv. IMP C M AVR PROBVS AVG ADVENTVS PROBI AVG	Emperor 1a	-- // I	H4l. Sup.II, 202α	–	1 4.10
†474	MARS VICTOR	Mars 2b	-- // II	F1 218	83	1 4.00
*†475	ABUNDANTIA AVG	Abundantia 1	-- // III	F1 249	59	1 3.72
†476	VIRTVS AVG	Virtus 7a	-- // III	H4l. 257	111	1 3.91
<i>obv. IMP C PROBVS PF AVG</i>						
†477	MARS VICTOR	Mars 2b	-- // III	H4l. 241	84	1 3.69
<i>obv. VIRTVS PROBI AVG</i>						
*†478	TEMPOR FELICI	Felicitas 1c	-- // I	H4l. 209	106	2 4.69, 4.22
*†479	TEMPOR FELICI	Felicitas 1c	-- // I	H5l. 210	106	1 4.33
*†480	TEMPOR FELICI	Felicitas 1c	-- // I	G1l. 211	106	1 4.37, 2.77
*†481	MARS VICTOR	Mars 2b	-- // II	H4l. 220	85	1 3.66
*†482	MARS VICTOR	Mars 2b	-- // III	G1 Sup.II, 244α	–	1 4.36
*†483	MARS VICTOR	Mars 2b	-- // III	H4l. 242?	–	1 3.76
*†484	MARS VICTOR	Mars 2b	-- // III	H7l. (243)	86v	2 4.64, 3.49
<i>Issue 6</i>						
<i>obv. IMP C M AVR PROBVS PF AVG</i>						
*485	FIDES MILITVM	Fides 1	-- // III	D2 276	78v	1 3.32
<i>obv. IMP C M AVR PROBVS AVG</i>						
*†486	TEMPOR FELICI	Felicitas 1c	-- // I	B1l. 267	–	1 4.55
487	TEMPOR FELICI	Felicitas 1c	-- // I	B1 266	103	6 4.34, 4.17, 3.96, 3.78, 3.55, 3.42
488	MARS VICTOR	Mars 2b	-- // II	D2 271	83	2 4.01, 2.82
*489	MARS VICTOR	Mars 2b	-- // III	D2 284	83	8 4.49, 4.05, 4.02, 3.95, 3.81, 3.72, 3.40, 3.34
†490	MARS VICTOR	Mars 2b	-- // III	B1 285	83	1 3.68
491	FIDES MILITVM	Fides 1	-- // III	D2 278	79	5 4.79, 4.35, 3.56, 3.39, 3.17
492	ABUNDANTIA AVG	Abundantia 1	-- // IIII	B1 291	59	2 3.88, 3.69
493	VIRTVS AVG	Virtus 7a	-- // IIII	B1 296	111	2 3.92, 3.70
<i>obv. IMP C PROBVS PF AVG</i>						
*494	TEMPOR FELICI	Felicitas 1c	-- // I	B1 269	104	32 5.20, 4.94, 4.61, 4.42, 4.39, 4.22(2), 4.21(3), 4.18(2), 4.12, 4.08, 4.07, 4.01, 3.96, 3.95, 3.89, 3.88(2), 3.83, 3.82, 3.80, 3.79, 3.78, 3.75, 3.71, 3.69, 3.63, 3.62, 3.52

<i>Cat. No</i>			<i>Marks</i>	<i>Bust</i>		<i>RIC</i>	<i>Qty</i>	<i>Weight</i>
495	MARS VICTOR	Mars 2b	- - // II	B1	274	84	2	3.96, 3.95
496	FIDES MILITVM	Fides 1	- - // III	B1	281	80	11	4.97, 4.62, 4.27, 4.16, 4.02(2), 3.99, 3.85, 3.37, 3.31, 3.31
497	MARS VICTOR	Mars 2b	- - // III	D2	286	-	1	3.91
498	MARS VICTOR	Mars 2b	- - // III	B1	287	84	17	4.48, 4.45, 4.31, 4.29, 4.09, 4.00, 3.95, 3.94, 3.83, 3.82, 3.75, 3.66, 3.62, 3.59, 3.58, 3.54, 3.30
499	ABVNDANTIA AVG	Abundantia 1	- - // IIII	B1	293	60	2	3.55, 3.51
*500	VIRTVS AVG	Virtus 7a	- - // IIII	B1	298	112	26	4.81, 4.60, 4.59, 4.50, 4.47, 4.30, 4.24, 4.17, 4.07, 4.02, 3.94, 3.92, 3.88, 3.81, 3.76, 3.75, 3.69(2), 3.67, 3.64, 3.64, 3.58, 3.52, 3.41, 3.39, 3.38
*501	VIRTVS AVG <i>obv. IMP C PROBVS P F AVG</i>	Virtus 7a	- - // IIII	B2	300	-	1	4.07
502	TEMPOR FELICI	Felicitas 1c	- - // I	B1	270	104	2	4.76, 3.74
*503	TEMPR FELICI <i>sic</i>	Felicitas 1c	- - // I	B1	270	104	1	3.67
*504	MARS VICTOR	Mars 2b	- - // II	B1	275	84	2	3.68, 2.91
505	MARS VICTOR <i>Issue 7</i> <i>obv. IMP C PROBVS-PF-AVG</i>	Mars 2b	- - // III	B1	288	84	3	3.83, 3.35, 3.18
*506	MARS VICTOR with captive	Mars 2d	- - // -	B1	312	-	3	4.33, 4.03, 3.63
*507	COMITI PROBI AVG <i>Issue 8</i> <i>obv. IMP C M AVR PROBVS PF AVG</i>	Minerva 4	- - // I	B1	315	69	4	4.35, 4.35, 3.39, 3.27
508	FELICIT TEMP <i>obv. IMP C M AVR PROBVS AVG</i>	Felicitas 5	- - // II	D2	345	73	1	3.23
*509	FELICIT TEMP <i>obv. IMP C PROBVS-PF-AVG</i>	Felicitas 5	- - // II	D2	346	74	5	4.13, 4.06, 3.79, 3.77, 3.76
510	COMES AVG	Minerva 4	- - // I	B1	342	65	2	3.50, 3.43
511	FELICIT TEMP	Felicitas 5	- - // II	B1	347	75	9	5.01, 4.38, 4.20, 4.10, 3.87, 3.80, 3.75, 3.74, 3.67
512	TEMPOR FELICIT	Felicitas 1c	- - // II	B1	350	107	2	3.73, 3.29
*513	PIAETAS AVG	Pietas 4	- - // III	B1	354	93	7	4.82, 4.22, 4.06, 3.97, 3.38, 3.32, 3.11
514	PIETAS AVG	Pietas 4	- - // III	B1	359	96	3	4.74, 3.97, 3.67
515	PAX AVG	Pax 1	- - // IIII	B1	366	91	7	5.82, 4.66, 4.14, 3.88, 3.86, 3.84, 3.82
*516	FELICIT TEMP <i>obv. IMP C PROBVS P F AVG</i>	Felicitas 5	- - // II	B1	348	75	3	4.15, 4.01, 3.88
*517	FELICT TEMP <i>sic</i> <i>Issue 9</i> <i>obv. IMP C M AVR PROBVS PF AVG</i>	Felicitas 5	- - // II	B1	348v	75v	1	3.54
518	FELICIT TEMP	Felicitas 5	B - // -	D2	380	-	1	3.55
*519	SALVS AVG	Salus 1	- B // -	D2	Sup. II, 391α	122	1	3.52
520	COMES AVG <i>obv. IMP C M AVR PROBVS AVG</i>	Minerva 4	A - // -	D2	373	115	3	4.19, 3.87, 3.82
521	SALVS AVG	Salus 1	- B // -	D2	392	123	10	4.64, 4.61, 4.17, 4.12, 4.10, 4.07, 3.88, 3.83, 3.69, 3.56
*522	SALVS AVG	Salus 1	see note	D2	-	-	1	3.84
*523	SPES AVG	Spes 1a	C - // -	D2	402	127	10	4.26, 3.87, 3.85, 3.80, 3.77, 3.61, 3.56, 3.53, 3.51, 3.11

<i>Cat. No</i>		<i>Marks</i>	<i>Bust</i>	<i>RIC</i>	<i>Qty</i>	<i>Weight</i>
524 SPES AVG	Spes I	C - // -	D2 402	127	4	4.29, 3.98(2), 3.93,
†525 SPES AVG	Spes I	see note	D2 405	127	1	4.00
526 SPES AVG	Spes I	- C // -	D2 414	127	3	4.27, 3.52, 3.46
*†527 SPES AVG	Spes I	see note	D2 419	-	1	4.20
528 PAX AVG	Pax I	D - // -	D2 422	118	4	3.85, 3.69, 3.48, 3.28
<i>obv. IMP C PROBVS P F AVG</i>						
*529 COMES AVG	Minerva 4	A - // -	D1 374	116	6	4.61, 4.28, 4.09, 4.06, 3.57, 3.09
530 COMES AVG	Minerva 4	A - // -	B1 375	116	39	4.82, 4.73, 4.66, 4.65, 4.56, 4.51, 4.46, 4.14, 4.09, 4.07, 4.06, 4.02, 4.01(2), 4.00(2), 4.00, 3.95, 3.93, 3.92, 3.89, 3.85, 3.80, 3.79, 3.77, 3.77, 3.74, 3.71, 3.70, 3.68, 3.63, 3.62, 3.61, 3.55, 3.54, 3.47, 3.45, 3.24, 2.97
531 FELICIT TEMP	Felicitas 5	B - // -	B1 381	-	1	3.92
532 TEMPOR FELICIT	Felicitas 1c	B - // -	B1 386	129	33	5.68, 5.61, 4.91, 4.72, 4.53, 4.48, 4.44, 4.36, 4.34, 4.26, 4.19, 4.13, 4.12, 4.11, 4.10, 4.08, 4.07, 4.05, 4.01, 3.94(2), 3.87, 3.84, 3.75, 3.72, 3.66, 3.56, 3.52(3), 3.47, 3.35, 3.27
533 SALVS AVG	Salus 1	- B // -	D1 393	124	5	4.28, 3.97, 3.55, 3.47, 3.28
534 SALVS AVG	Salus 1	- B // -	B1 394	124	5	4.19, 4.10, 3.53, 3.31, 3.04
535 SPES AVG	Spes Ia	C - // -	D1 403	128	4	4.29, 3.92, 3.85, 3.83
536 SPES AVG	Spes I	C - // -	D1 403	128	2	4.27, 3.59
537 SPES AVG	Spes I	C - // -	B1 404	128	10	4.41, 4.28, 4.26, 4.25, 4.15, 3.99, 3.97, 3.85, 3.49, 3.33
†538 SPES AVG	Spes I	see note	D1 406	128	1	4.33
†539 SPES AVG	Spes I	see note	B1 407	128	1	3.97
†540 PAX AVG	Pax I	- C // -	B1 408	-	1	3.94
*541 PIETAS AVG	Pietas 4	- C // -	B1 410	120	19	4.69, 4.48, 4.46, 4.32(2), 4.31, 4.30, 4.27, 4.18, 4.15, 4.06, 4.04, 4.00, 3.81, 3.57, 3.53, 3.44, 3.40, 3.36
*†542 PIETAS AVG	Pietas 4	- C // -	D1 412	-	2	3.69, 3.38
543 PIETAS AVG	Pietas 4	- C // -	B1 413	121	18	4.40, 4.17(2), 4.08, 4.05, 4.02, 3.98, 3.91, 3.85, 3.73, 3.71, 3.68, 3.53, 3.52, 3.45, 3.44(2), 3.04
544 PAX AVG	Pax I	D - // -	D1 423	119	2	4.88, 3.82
545 PAX AVG	Pax I	D - // -	B1 424	119	50	5.99, 4.80, 4.73, 4.69, 4.51, 4.36, 4.28, 4.24, 4.24, 4.23, 4.22, 4.17, 4.16, 4.13, 4.08, 4.04, 4.03(2), 4.01(2), 4.01, 3.99, 3.94, 3.93(2), 3.92, 3.91, 3.88, 3.87, 3.86, 3.82, 3.82, 3.79, 3.76(2), 3.75(2), 3.73, 3.68, 3.65, 3.63, 3.61(2), 3.57(2), 3.49, 3.46, 3.36, 3.25, 3.07

<i>Cat. No</i>		<i>Marks</i>	<i>Bust</i>	<i>RIC</i>	<i>Qty</i>	<i>Weight</i>
546	PAX AVG	Pax 1	- D // -	D1 431	-	2 4.00, 3.51
*†547	PAX AVG <i>obv. IMP C PROBVS P F AVG</i>	Pax 1	see note	B1 438	-	1 3.69
548	COMES AVG	Minerva 4	A - // -	B1 376	116	1 4.16
*549	TEMPOR FELICIT <i>obv. IMP-PROBVS AVG</i>	Felicitas 1c	B - // -	B1 386	129	1 3.13
*†550	TEMPOR FELICIT	Felicitas 1c	B - // -	B1 389	-	1 3.76
Rome (199)						
<i>Issue 1</i>						
<i>obv. IMP C M AVR PROBVS AVG</i>						
†551	PROVIDENTIA AVG	Providentia 2	- - // XXIA	B1	726	6 4.73, 4.13, 3.66, 3.48, 3.32, 3.09
†552	CONSERVAT AVG	Sol 7	- B // XXI	B1	673	5 4.55, 4.16, 3.75, 3.64, 3.45
*†553	CONSERVAT AVG	Sol 7	- B // XXI	D1	673	1 3.90
†554	CONSERVAT AVG	Sol 7	- - // XXIB	B1	673	10 4.85, 4.49, 4.40, 4.33, 4.22, 4.06, 3.61, 3.37, 3.32, 2.98
555	AEQVITAS AVG	Aequitas 1	- Γ // XXI	B1	150	7 5.07, 3.79, 3.69, 3.63, 3.51, 3.37, 3.08
556	AEQVITAS AVG	Aequitas 1	- Γ // XXI	D2	150	1 4.14
557	AEQVITAS AVG	Aequitas 1	- - // XXII	B1	150	2 3.81, 3.23
†558	SALVS AVG	Salus 1	- - // ΔXXI	B1	744	3 4.42, 4.00, 3.54
*†559	SALVS AVG	Salus 1	- - // ΔXXI	D2	744	3 4.10, 3.72, 3.68
*†560	FIDES MILIT	Fides 6	- - // XXIe	B1	151	4 4.14, 4.04, 3.72, 3.57
†561	VIRTVS AVG	Emperor 2	- - // XXIe	B1	801	5 5.24, 4.43, 4.41, 4.25, 3.68
562	IOVI STATORI	Jupiter 2	- Z // XXI	B1	152	3 4.18, 3.04, 2.88
563	IOVI STATORI	Jupiter 2	- - // XXIZ	B1	152	1 3.18
<i>Issue 2</i>						
<i>obv. IMP C M AVR PROBVS PF AVG</i>						
*564	SOLI INVICTO	Sol in quadriga 1	- - // R	K4I.	-	1 4.06
*565	ROMAE AETERNAE <i>obv. IMP C M AVR PROBVS AVG</i>	Temple 2	- - // RΔ	B1	190	1 3.95
*566	VIRTVS AVGVSTI	Emperor 13	- - // R	D1	-	1 3.38
*†567	VIRTVS AVGVSTI	Emperor 13	- - // RB	D1	-	1 3.89
*568	VIRTVS AVGVSTI	Emperor 13	- - // RΔ	F1	-	1 4.30
*569	VIRTVS AVG <i>obv. VIRTVS PROBI AVG</i>	Virtus 1	- - // RΔ	D1	-	1 3.64
*†570	ROMAE AETERNAE	Temple 2	- - // RΔ	H4I.	196	1 4.25
<i>Issue 3</i>						
<i>obv. IMP C M AVR PROBVS PF AVG</i>						
*571	ADVENTVS PROBI AVG	Emperor 1a	Δ	B1	160	1 4.09
572	SOLI INVICTO <i>obv. IMP C M AVR PROBVS AVG</i>	Sol in quadriga 1	B	K4I.	204	1 3.59
573	ROMAE AETERNAE	Temple 2	ς	B1	-	1 4.11
*†574	ROMAE AETERNAE <i>obv. IMP PROBVS AVG</i>	Temple 2	Z	B1	-	1 3.67
575	ADVENTVS AVG	Emperor 1a	Γ	B1	157	1 4.47
576	ADVENTVS AVG	Emperor 1a	Δ	B1	157	1 3.63
577	ADVENTVS AVG	Emperor 1a	ς	B1	157	1 3.86
578	ADVENTVS AVG	Emperor 1a	ς	H4I.	157	2 4.88, 3.36
579	ROMAE AETER	Temple 2	Γ	B1	185	2 3.88, 3.81
580	ROMAE AETER	Temple 2	Γ	H4I.	185	1 3.72
581	ROMAE AETER	Temple 2	Γ?	K4I.	185	1 3.52
582	SOLI INVICTO	Sol in quadriga 2	ε	K4I.	202	1 3.60
83	VICTORIA GERM trophy	Trophy 1	A	B1	222	1 3.28
*584	VICTORIA GERM	Victory 12	Z	B1	219	1 3.11
<i>Issue 4</i>						
<i>obv. IMP PROBVS AVG</i>						
585	ADVENTVS AVG	Emperor 1a	ς	B1	157	1 3.33
*586	ADVENTVS AVG	Emperor 1a	ς	H4I.	157	1 3.97

<i>Cat. No</i>		<i>Marks</i>	<i>Bust</i>	<i>RIC</i>	<i>Qty</i>	<i>Weight</i>
587	ADVENTVS AVG	Emperor 1a	Z	B1	157	1 3.42
588	ROMAE AETER	Temple 2	ε	K41.	185	3 4.18, 4.02, 3.88
589	VICTORIA GERM	Trophy 1	A	B1	222	1 3.61
*†590	ADVENTVS AVG	Emperor 1a	ς	H41.	157	2 3.52, 3.25
	<i>Issue 5</i>		// RvwreathA			
	<i>obv. IMP PROBVS PF AVG</i>					
591	VICTORIA GERM	Trophy 1	A	B1	220	2 4.33, 3.85
592	SOLI INVICTO	Sol in quadriga 2	Γ	K41.	200	2 4.17, 3.69
593	ROMAE AETER	Temple 2	Δ	K41.	183	4 4.12, 3.56, 3.54, 3.51
*†594	FIDES MILITVM	Fides 1	ε	B1	169c.	2 4.17, 3.57
595	ADVENTVS AVG	Emperor 1a	Z	B1	155	2 3.80, 3.30
	<i>obv. IMP C PROBVS AVG</i>					
*596	VICTORIA GERM	Trophy 1	A	B1	221	3 4.32, 3.96, 3.67
597	ADVENTVS AVG	Emperor 1a	Z	B1	156	1 4.15
	<i>obv. IMP PROBVS AVG</i>					
598	VICTORIA GERM	Trophy 1	A	B1	222	2 5.25, 3.72
599	SOLI INVICTO	Sol in quadriga 2	B	K41.	202	1 2.96
600	ROMAE AETER	Temple 2	B	B1	185	2 5.01, 4.36
601	ROMAE AETER	Temple 2	Γ	H41.	185	1 4.18
602	ROMAE AETER	Temple 2	ε	K41.	185	1 4.35
603	VICTORIA AVG	Victory 4	ς	H41.	214	1 3.28
604	ADVENTVS AVG	Emperor 1a	Z	B1	157	1 3.79
	<i>Issue 5/6</i>		<i>uncertain symbol</i>			
	<i>obv. IMP PROBVS PF AVG</i>					
*†605	FIDES MILITVM	Fides 1	ε	B1	(-)	1 3.99
	<i>Issue 6</i>		// RfulmenA			
	<i>obv. IMP PROBVS PF AVG</i>					
606	VICTORIA GERM	Trophy 1	A	B1	220	4 4.58, 4.49, 3.60, 3.49
*607	IOVI CONS PROB AVG	Jupiter 1	B	B1	173	4 4.28, 3.41, 2.92, 2.74
608	SOLI INVICTO	Sol in quadriga 2	Γ	B1	200	1 4.12
609	SOLI INVICTO	Sol in quadriga 2	Γ	K41.	200	10 4.00, 3.96, 3.87, 3.82, 3.81, 3.75, 3.69(2), 3.29, 3.23
*†610	ROMAE AETER	Temple 2	Δ	K41.	183v	13 4.42, 4.34, 4.20, 4.02, 4.00, 3.81, 3.64, 3.32, 3.31(2), 3.13, 3.11, 2.85
*†611	FIDES MILITVM	Fides 1	ε	B1	169c.	5 4.15, 4.09, 3.85, 3.54, 3.48
†612	VICTORIA AVG	Victory 4	ς	B1	213c.	1 3.47
613	ADVENTVS AVG	Emperor 1a	Z	B1	155	3 4.30, 3.95, 3.54
	<i>obv. IMP C PROBVS AVG</i>					
†614	ROMAE AETER	Temple 2	ε	K41.	184v	1 3.50
†615	SOLI INVICTO	Sol in quadriga 2	ε	K41.	201v	1 4.32
	<i>obv. IMP PROBVS AVG</i>					
616	VICTORIA GERM	Trophy 1	A	B1	222v	1 4.02
*617	ADVENTVS AVG	Emperor 1a	Γ	H41.	157	1 4.14
618	ROMAE AETER	Temple 2	Δ	K41.	185	1 3.92
*619	SOLI INVICTO	Sol in quadriga 2	ε	K41.	202	1 3.32
620	ADVENTVS AVG	Emperor 1a	ς	B1	157	1 3.48
621	ADVENTVS AVG	Emperor 1a	ς	H41.	157	1 3.71
622	ADVENTVS AVG	Emperor 1a	Z	B1	157	2 4.98, 3.28
	<i>obv. PROBVS PF AVG</i>					
623	VICTORIA GERM	Trophy 1	A	B1	223	4 4.29, 3.81, 3.65, 3.56
624	SOLI INVICTO	Sol in quadriga 2	Γ	K41	203	6 4.50, 4.43, 4.00, 3.40, 3.37, 3.30
625	ROMAE AETER	Temple 2	Δ	K41.	187	4 4.25, 4.17, 4.14, 2.99
626	FIDES MILITVM	Fides 1	ε	B1	170	6 4.20, 4.03, 3.93, 3.84, 3.70, 3.17
*627	VICTORIA AVG	Victory 4	ς	B1	215	3 4.24, 4.10, 3.83
†628	ADVENTVS AVG	Emperor 1a	Z	B1	158c	3 3.66, 3.64, 3.37
	<i>Issue 7</i>		'Aequiti' series			
	<i>obv. PROBVS PF AVG</i>					
*629	VICTORIA GERM	Trophy 1	RAA	B1	223	1 4.20

Cat. No			Marks	Bust	RIC	Qty	Weight
630	IOVI CONS PROB AVG	Jupiter 1	REB	B1	175v	2	4.09, 2.91
*631	MARTI PACIF	Mars 1b	RQII	B1	177	2	3.84, 3.59
*632	ROMAE AETER	Temple 2	RVΔ	K4L	187v	3	4.88, 4.28, 3.47
633	FIDES MILITVM	Fides 1	RIE	B1	170	2	3.61, 3.43
634	VICTORIA AVG	Victory 4	RTς	B1	215	1	4.74
635	ADVENTVS AVG	Emperor 1a	RIZ	B1	158	1	3.56
*636	AETERNITAS AVG	Sol 3	RIZ	B1	168	1	3.06
Ticinum (234)					RIC		
Issue 1		(20mm dies)					
obv. IMP C M AVR PROBVS AVG							
637	PRINCIPI IVVENTVT	Prince 1b	-- // PTI	D2	318	1	3.86
638	PROVIDEN AVG	Providentia 2b	-- // STI	D2	319	2	4.18, 3.65
639	IOVI CONSERVAT	Jupiter 1	-- // TTI	D2	315	1	4.14
*640	PERPETVITATE AVG	Perpetuitas 1	-- // [Q]TI	D2	317	1	3.56
641	CONCORDIA EXERCI	Concordia 3	-- // VITI	D2	313	1	4.28
Issues 2-5: Series with Latin off. Marks							
Issue 2		(20-21mm dies)					
obv. IMP C M AVR PROBVS AVG							
642	CONCORD MILIT	Emperor and Concordia 1	-- // PXXT	B1	332	4	4.51, 3.96, 3.67, 3.39
643	CONCORD MILIT	Emperor and Concordia 1	-- // PXXT	D2	332	10	4.66, 4.50, 4.45(2), 4.38, 4.26, 3.67, 3.51, 3.46, 3.39
*644	CONCOR MILIT	Emperor and Concordia 1	-- // PXXT	D2	332v	1	3.96
*645	CONCORD MILITV	Emperor and Concordia 1	-- // [P]XXT	D2	340v	1	3.42
646	CONCORD AVG	Concordia and Sol 1	-- // SXXT	B1L	323	1	3.69
647	CONCORD AVG	Concordia and Sol 1	-- // SXXT	D2	323	3	4.40, 4.00, 3.80
648	FELICITAS SEC	Felicitas 1	-- // SXXT	B1	359	1	4.15
649	FELICITAS SEC	Felicitas 1	-- // SXXT	B1	359	4	4.18, 4.07, 3.81, 3.41
650	CONSERVA AVG	Sol 3	-- // TXXT	D2	348	2	4.52, 3.90
*651	CONSERVAT AVG	Sol 3	-- // TXXT	B1	348	3	4.35, 4.15, 3.74
*652	CONSERVAT AVG	Sol 3	-- // TXXT	D2	348	5	7.72, 4.69, 4.36, 3.82, 3.70
*653	VIRTVS AVG	Virtus 7a	-- // QXXI	B1	435	2	3.81, 2.98
*654	VIRTVS AVG	Virtus 7a'	-- // QXXI	B1	435	1	3.71
655	IOVI CONSERVAT	Emperor and Jupiter 1b	-- // VXXT	D2	386	4	4.43, 4.18, 4.02, 3.61
656	IOVI CONSERVA	Emperor and Jupiter 1b	-- // VXXT	D2	386	1	4.40
657	IOVI CONSERVA	Emperor and Jupiter 1b	-- // VXXT	B1	386	2	4.05, 3.78
*658	FIDES MILIT	Fides 1	-- // VIXXT	B1	364	1	3.79
659	FIDES MILIT	Fides 1	-- // VIXXT	D2	364	1	4.00
660	RESTITVT SAEC	Emperor and Victory 1	-- // VIXXT	D2	401	1	4.25
*661	RESTITVT SEC	Emperor and Victory 1	-- // VIXXT	D2	401	1	3.45
Issue 3		(21mm dies)					
obv. IMP C M AVR PROBVS AVG							
662	ERCVLI PACIFERO	Hercules 3	-- // SXXT	K4L	374	1	4.05
663	FELICITAS SEC	Felicitas 1	-- // SXXT	K4L	359	1	3.42
664	CONSERVAT AVG	Sol 3	-- // TXXT	G3L	348	1	3.62
*665	IOVI CONSERVAT	Emperor and Jupiter 1b	-- // VXXT	G3L	386	1	3.72
*666	FIDES MILIT	Fides 1	-- // VIXXT	K4L	364	1	4.00
obv. VIRTVS PROBI AVG		(21-22mm dies)					
*667	CONCORD MILI	Emperor and Concordia 1	-- // PXXT	H4L	327	1	4.07
*668	CONCORD MILIT	Emperor and Concordia 1	-- // PXXT	H5L	336	1	3.68
*669	FELICITAS SEC	Felicitas 1	-- // SXXT	G1L	361	1	3.73
*670	CONSERVAT AVG	Sol 3	-- // TXXT	F4	351	1	3.54
*671	CONSERVAT AVG	Sol 3	-- // TXXT	G3L	351	1	4.87
*672	CONSERVAT AVG	Sol 3	-- // TXXT	H4L	351	1	3.33

Cat. No		Marks	Bust	RIC	Qty	Weight
673	CONSERVAT AVG	Sol 3	-- // TXXT H4l.	351	1	4.10
674	VIRTVS AVG	Virtus 7a	-- // QXXT F2l.	437	1	4.00
*675	VIRTVS AVG	Virtus 7a	-- // QXXT H4l.	437	1	3.75
*†676	VIRTVS AVG	Virtus 7a	-- // QXXT L4l.	c1437	1	4.90
677	IOVI CONSERVAT	Emperor and Jupiter 1b	-- // VXXT G1l.	388	1	3.75
678	FIDES MILIT	Fides l	-- // VIXXT G3l.	366	2	3.64, 3.19
*679	FIDES MILIT	Fides l	-- // VIXXT H4l.	366	1	4.04
*†680	FIDES MILIT	Fides l	-- // VIXXT H4l.	366	1	3.07
*681	FIDES MILIT	Fides l	-- // VIXXT H5l.	366	1	3.71
	<i>Issue 4</i>					
	<i>First phase</i>		(21mm dies)			
	<i>obv. IMP C PROBVS P F AVG</i>					
*682	CONSERVAT AVG	Sol 3	-- // TXXT B1	349	2	4.11, 2.82
*683	FIDES MILIT	Fides l	-- // VIXXT B1	365	1	4.11
	<i>obv. IMP C PROBVS P F AVG</i>					
*684	CONCORD MILIT	Emperor and Concordia l	-- // PXXT B1	333	2	4.63, 3.91
*685	CONCORD MILIT	Emperor and Concordia l	-- // PXXT K4l.	333	2	4.17, 4.01
686	FELICITAS SEC	Felicitas l	-- // SXXT B1	360	1	4.10
687	CONSERVAT AVG	Sol 3	-- // TXXT B1	349	1	3.84
	<i>obv. IMP C PROBVS P F AVG</i>					
*688	ERCVLI PACIF	Hercules l	-- // VIXXT B1	375	1	3.92
	<i>Second phase</i>		(20mm dies)			
	<i>obv. IMP C M AVR PROBVS P F AVG</i>					
*†689	FIDES MILIT	Fides l	-- // VIXXT B1	363	1	3.67
	<i>obv. IMP C PROBVS P F AVG</i>					
*690	VIRTVS AVG	Mars 2b	-- // PXXT B1	428	1	3.64
*691	ERCVLI PACIF	Hercules l	-- // SXXT K4l.	375	1	3.55
692	CONSERVAT AVG	Sol 3	-- // TXXT B1	349	3	4.20, 3.62, 3.43
693	VIRTVS AVG	Virtus 7a	-- // QXXT B1	436	2	4.67, 3.36
694	VIRTVS AVG	Virtus 7a	-- // QXXT K4l.	436	1	3.45
695	IOVI CONSERVAT	Emperor and Jupiter 1b	-- // VXXT K4l.	387	1	4.22
696	ERCVLI PACIF	Hercules l	-- // VXXT K4l.	375	2	3.73, 3.04
*697	PAX AVG	Pax l	-- // VXXT B1	-	1	3.73
698	FIDES MILIT	Fides l	-- // VIXXT B1	365	4	4.40, 3.69, 3.52, 3.41
	<i>obv. VIRTVS PROBI AVG</i>					
699	VIRTVS AVG Mars	Mars 2b	-- // PXXT L4l.	430	1	3.68
*†700	ERCVLI PACIF	Hercules l	-- // SXXT L2l.	-	1	3.97
†701	VIRTVS AVG	Virtus 7a	-- // QXXT F2l.	437	1	3.96
*†702	FIDES MILIT	Fides l	-- // VIXXT G1l.	366	1	4.13
703	FIDES MILIT	Fides l	-- // VIXXT H4l.	366	1	3.90
	<i>Issue 5</i>		(20mm dies)			
	<i>obv. IMP C PROBVS AVG</i>					
*704	CONSERVAT AVG	Sol 3	-- // TXXT B1	350	1	3.72
	<i>Issue 6</i>					
	<i>Series with Greek off. marks</i>					
	<i>a): no mark of value</i>		(20mm dies)			
	<i>obv. IMP C PROBVS P F AVG</i>					
*705	PAX AVG	Pax l	-- // € (?) K4l.	-	1	3.70
	<i>obv. IMP C PROBVS AVG</i>					
*706	MARTI PACIF	Mars 1b	Δ - // - B1	-	1	3.74
*707	SECVRIT PERPE	Securitas 2a	ς - // - B1	-	1	3.93
	<i>b): with XXI</i>		(20mm dies)			
	<i>obv. IMP C PROBVS P F AVG</i>					
708	CONCORD MILIT	Concordia 3	-- // AXXI B1	531	2	4.48, 4.12
709	SALVS AVG	Salus 5	-- // AXXI B1	562	2	4.57, 3.92
710	PROVIDENT AVG	Providentia l	-- // BXXI K4l.	551	1	4.06
711	SALVS AVG	Salus 2	-- // TXXI B1	556	1	4.09
712	SALVS PVBLIC	Salus 2	-- // TXXI B1	567	1	3.76
713	MARTI PACIF	Mars 1b	-- // ΔXXI B1	541	3	4.29, 3.74, 3.53
714	SECVRIT PERP	Securitas 2a	-- // ςXXI B1	572a	1	2.91

Cat. No			Marks	Bust	RIC	Qty	Weight
	<i>obv. IMP C PROBVS AVG</i>						
715	CONCORD MILIT	Concordia 3	- - // AXXI	B1	532	1	3.34
*716	SALVS AVG	Salus 5	- - // AXXI	B1	563	3	4.48, 3.70(2)
717	PROVIDENT AVG	Providentia 1	- - // BXXI	B1	552	1	3.44
718	SALVS PVBLIC	Salus 2	- - // I'XXI	B1	568	3	4.33, 3.79, 3.25
719	PAX AVG	Pax 1	- - // eXXI	B1	547	1	3.69
720	SECVRIT PERP	Securitas 2a	- - // sXXI	B1	573	2	3.64, 3.55
	<i>obv. VIRTVS PROBI AVG</i>						
*721	SALVS PVBLIC	Salus 2	- - // I'XXI	G11.	569	1	3.80
	<i>Issue 7</i>						
	<i>'AEQVIT' series</i>		(20mm dies)				
	<i>obv. VIRTVS PROBI AVG</i>						
*722	MARTI PACIF	Mars 1b	V - // QXXI	H41.	472	1	3.73
	<i>Issues 8-9: 'EQVITI' series</i>		(20mm dies)				
	<i>Issue 8</i>						
	<i>obv. IMP C M AVR PROBVS AVG CONS III</i>						
*723	SALVS AVG	Salus 2	V - // TXXI	K41.	502	1	4.55
*724	SECVRIT PERP	Securitas 2a	- I // VIXXI	K41.	(528)	1	3.68
	<i>obv. IMP C M AVR PROBVS P F AVG</i>						
*725	SECVRIT PERP	Securitas 2a	- I // VIXXI	K41.	(522)	1	4.62
	<i>obv. IMP C M AVR PROBVS AVG</i>						
726	PROVIDENT AVG	Providentia 1	Q - // SXXI	K41.	488	2	4.68, 4.27
+727	SECVRIT PERP	Securitas 2a	- I // VIXXI	K41.	(523)	1	4.61
	<i>Issue 9</i>						
	<i>obv. IMP C PROBVS AVG CONS IIII</i>						
728	SALVS AVG	Salus 2	V - // TXXI	K41.	521	1	3.47
729	MARTI PACIF	Mars 1b	I - // QXXI	K41.	513	1	4.15
	<i>obv. IMP C PROBVS P F AVG</i>						
730	CONCORD MILIT	Concordia 3	E - // PXXI	K41.	479	2	4.00, 3.78
731	PROVIDENT AVG	Providentia 1	Q - // SXXI	K41.	489	3	4.19, 4.07, 3.51
732	SECVRIT PERP	Securitas 2a	I - // VIXXT	K41.	524	1	3.57
	<i>obv. IMP C PROBVS AVG</i>						
733	CONCORD MILIT	Concordia 3	E - // PXXI	K41.	480	7	4.41, 4.23, 4.18, 4.07, 3.67, 3.50, 3.16
734	PROVIDENT AVG	Providentia 1	Q - // SXXI	K41.	490	3	4.71, 3.98, 3.67
735	SALVS AVG	Salus 2	V - // TXXI	B1	499	1	3.76
736	SALVS AVG	Salus 2	V - // TXXI	K41.	499	4	4.19, 4.11, 3.77, 3.59
737	MARTI PACIF	Mars 1b	I - // QXXI	K41.	508	3	3.71, 3.39, 3.32
738	PAX AVGVSTI	Pax 1	T - // VXXI	K41.	516	5	4.24, 4.10, 3.58, 3.37, 3.28
739	PAX AVG	Pax 1	T - // VXXI	K41.	516	1	4.76
+740	SECVRIT PERP	Securitas 2a	I - // VIXXI	B1	-	1	3.81
741	SECVRIT PERP	Securitas 2a	- I // VIXXI	K41.	525	5	4.37, 4.22, 4.12, 3.95, 3.85
	<i>obv. VIRTVS PROBI INVICTI AVG</i>						
*742	MARTI PACIF	Mars 1b	I - // QXXI	H11.	482	1	3.10
	<i>obv. VIRTVS PROBI AVG</i>						
743	CONCORD MILIT	Concordia 3	E - // PXXI	H41.	481	6	4.26, 4.05, 4.01, 3.94, 3.69, 3.01
*744	PROVIDENT AVG	Providentia 1	Q - // SXXI	H41.	491	7	3.83, 3.81, 3.80, 3.68, 3.63, 3.62, 3.51
745	SALVS AVG	Salus 2	V - // TXXI	H41.	500	4	4.34, 3.81, 3.76, 3.65
746	MARTI PACIF	Mars 1b	I - // QXXI	H41.	509	8	5.35, 5.31, 5.24, 4.21, 3.84, 3.82, 3.80, 3.62
747	PAX AVGVSTI	Pax 1	T - // VXXI	H41.	517	3	4.45, 4.24, 3.85
748	PAX AVG	Pax 1	T - // VXXI	H41.	517	1	3.14
749	SECVRIT PERP	Securitas 2a	- I // VIXXI	H41.	526	2	3.84, 3.55
	<i>'Issue 10: 'EQVITI' series with star</i>		(20mm dies)				
	<i>obv. IMP C PROBVS AVG</i>						
*750	CONCORD MILIT	Concordia 3	E * // PXXI	K41.	480	7	4.48, 4.34, 3.86, 3.73, 3.63, 3.48, 3.46

<i>Cat. No</i>		<i>Marks</i>	<i>Bust</i>	<i>RIC</i>	<i>Qty</i>	<i>Weight</i>
751	PROVIDENT AVG	Providentia 1	Q * // SXXI	K41.	490	1 3.52
752	SALVS AVG	Salus 2	V * // TXXI	K41.	499	3 4.55, 4.08, 3.93
753	MARTI PACIF	Mars 1b	I * // QXXI	K41.	508	1 3.54
754	PAX AVGVSTI	Pax 1	T * // VXXI	K41.	516	2 4.00, 3.44
755	SECVRIT PERP	Securitas 2a	* I // VIXXI	K41.	525	3 3.38, 3.30, 2.70
	<i>obv. VIRTVS PROBI AVG</i>					
756	PROVIDENT AVG	Providentia 1	Q * // SXXI	H41.	491	2 4.01, 3.52
*757	PAX AVGVSTI	Pax 1	T * // VXXI	H41.	517	2 4.45, 3.79
758	SECVRIT PERP	Securitas 2a	* I // VIXXI	H41.	526	1 3.86
	<i>Siscia (44)</i>					
	<i>Issue 1</i>					
	<i>obv. IMP C M AVR PROBVS AVG</i>					
759	FELICITAS AVG	Felicitas 1	- Δ // XXI	D2	682	1 3.80
*760	FELICITAS AVG	Felicitas 6	- ε // XXI	D2	675	1 3.81
761	CONCORD MILIT	Emperor and Concordia 1	Γ // XXI	D2	651	2 3.80, 3.65
	<i>Issue 2A</i>					
	<i>obv. IMP C M AVR PROBVS PF AVG</i>					
762	ADVENTVS PROBI AVG	Emperor 1a	Γ // XXI	K41.	632	1 3.74
*†763	SOLI INVICTO	Sol in quadriga 1	Δ // XXI	K41.	-	2 3.74, 3.62
	<i>Issue 2B</i>					
	<i>obv. IMP PROBVS INV AVG</i>					
*†764	FELICITAS AVG	Felicitas 6	- A // XXI	B1	-	1 4.09
765	PROVIDENTIA AVG N	Providentia 2	- - // XXI	B1	727	1 3.54
	<i>Issue 3</i>					
	<i>obv. IMP C M AVR PROBVS PF AVG</i>					
766	SOLI INVICTO	Sol in quadriga 1	- - // XXIB	K41.	776	1 3.33
	<i>Issue 4</i>					
	<i>obv. IMP C M AVR PROBVS PF AVG</i>					
*†767	VIRTVS PROBI AVG	Trophy 1	- - // XXIT	J71.	cf820	1 3.86
	<i>obv. IMP C M AVR PROBVS P AVG</i>					
*768	P M TR P COS PP	Emperor 14	- - // XXIS	G21.	609v	1 4.80
	<i>Issue 5</i>					
	<i>obv. IMP C M AVR PROBVS PF AVG</i>					
769	VIRTVS PROBI AVG	Mars 2b	- - // XXIVI	G11.	810	1 3.80
770	VIRTVS PROBI AVG	Mars 2b	- - // XXIVI	K41.	810	1 4.18
	<i>obv. IMP C M AVR PROBVS P AVG</i>					
771	VIRTVS PROBI AVG	Mars 2b	- - // XXIQ	K41.	816v	1 3.79
772	VIRTVS PROBI AVG	Mars 2b	- - // XXIVI	K41.	816	1 3.99
	<i>obv. IMP C M AVR PROBVS AVG</i>					
773	CONCORD MILIT	Emperor and Concordia 1	- - // XXIS	B1	651	1 3.76
774	CONCORD MILIT	Emperor and Concordia 1	- - // XXIV	B1	651	1 3.79
	<i>obv. IMP C PROBVS PF AVG</i>					
775	RESTITVT ORBIS	Emperor and female 1	* // XXIQ	B1	733	1 4.17
776	RESTITVT ORBIS	Emperor and female 1	* // XXIV	B1	733	1 3.67
	<i>obv. IMP PROBVS PF AVG</i>					
*777	CONCORD MILIT	Emperor and Concordia 1	- - // XXIQ	K41.	-	1 4.24
*778	LAETITIA AVG	Laetitia 1	- - // XXIV	B11.	-	1 4.07
779	PAX AVGVSTI	Pax 1	- - // XXIVI	H41.	713	1 3.89
	<i>Issue 6</i>					
	<i>obv. IMP C M AVR PROBVS AVG</i>					
780	SOLI INVICTO	Sol in quadriga 2a	- - // XXIQ	D2	768	1 3.38
	<i>obv. IMP PROBVS PF AVG</i>					
781	CONCORDIA MILIT	Emperor and Concordia 1	- - // XXIQ	B1	666	1 4.65
782	CONCORDIA MILIT	Emperor and Concordia 1	- - // XXIQ	D2	666	1 4.30

<i>Cat. No</i>			<i>Marks</i>	<i>Bust</i>	<i>RIC</i>	<i>Qn</i>	<i>Weight</i>
783	CONCORDIA MILIT	Emperor and Concordia 1	- - // XXIQ	H51.	666	1	4.06
	<i>Issue 7</i>						
	<i>obv.</i> IMP C M AVR PROBVS PF AVG						
784	CONCORD MILIT	Emperor and Concordia 1	P // XXI	K41.	650	1	3.71
785	VIRTVS PROBI AVG	Emperor 15	T // XXI	K41.	818	1	3.37
786	VIRTVS PROBI AVG	Mars 2b	- V // XXI	B11.	810	1	3.64
	<i>obv.</i> IMP C M AVR PROBVS P AVG						
†787	PROVIDENT AVG	Providentia 1	- S // XXI	F21.	723	1	4.03
†788	VIRTVS PROBI AVG	Mars 2b	- S // XXI	K41.	816v	1	3.36
	<i>obv.</i> IMP C PROBVS PF AVG						
789	PAX AVG	Pax 1	- P // XXI	B1	706	1	4.01
790	PAX AVG	Pax 1	- T // XXI	B1	706	1	3.65
791	PAX AVGVSTI	Pax 1	- Q // XXI	B1	712	2	3.84, 3.74
	<i>obv.</i> IMP PROBVS PF AVG						
792	CONCORDIA AVG	Concordia 2	- P // XXI	B1	661	1	4.26
793	CONCORDIA MILIT	Emperor and Concordia 1	T // XXI	D2	666	1	4.14
794	PAX AVGVSTI	Pax 1	- S // XXI	B1	713	1	2.78
795	PAX AVGVSTI	Pax 1	- T // XXI	B1	713	1	3.85
796	PAX AVGVSTI	Pax 1	- V // XXI	K41.	713	1	4.17
797	PAX AVGVSTI	Pax 1	- VI // XXI	H41.	713	1	4.20
798	SALVS AVG	Salus 2	- O // XXI	B1	748	1	4.75
	<i>obv.</i> IMP PROBVS AVG						
*†799	VIRTVS PROBI AVG	Mars 2b	- Q // XXI	B11.	-	1	3.82
	Serdica (2)						
	<i>Issue 2</i>						
	<i>obv.</i> IMP C M AVR PROBVS AVG						
*†800	RESTITVT ORBIS	Emperor and female 1	* // KAΔ	D2	-	1	3.00
	<i>Issue 4</i>						
	<i>obv.</i> IMP C M AVR PROBVS PF AVG						
*801	VIRTVS PROBI AVG	Emperor 9a	- - // KA-Δ	D2	877	1	4.07
	Cyzicus (3)						
	<i>Issue 1</i>						
	<i>obv.</i> IMP C M AVR PROBVS AVG						
802	CLEMENTIA TEMP	Emperor and Jupiter 1b	P // XXI	D2	905	1	3.36
	<i>Issue 3</i>						
	<i>obv.</i> IMP C M AVR PROBVS PF AVG						
803	SOLI INVICTO	Sol in quadriga 1c	CM // XXIT	K41.	911	1	3.73
	<i>Issue 4</i>						
	<i>obv.</i> IMP C M AVR PROBVS PF AVG						
*804	SOLI INVICTO	Sol in quadriga 1c	CM // XXIΔ	K41.	911	1	3.57
	Antioch (1)						
	<i>Issue 2</i>						
	<i>obv.</i> IMP C M AVR PROBVS PF AVG						
*805	RESTITVT ORBIS	Emperor and female 1	ε // XXI	D2	925	1	3.97
	CARUS AND FAMILY						
	Lyon (51)				<i>Bastien</i>	<i>RIC</i>	
	<i>Issue 1</i>						
	<i>obv.</i> IMP C M AVR CARVS-PF-AVG						
806	VICTORIA AVG	Victory 3a	- - // -	D1	449	20	1 3.39
	<i>Issue 2</i>						
	<i>obv.</i> IMP C M AVR CARVS-PF-AVG						
*†807	VICTORIA AVG	Victory 3a	A - // -	D1	-	20	1 3.74
	<i>Issue 3</i>						
	<i>obv.</i> IMP C M AVR CARVS P F AVG						
*†808	PAX AVGG	Pax 1	B - // -	H1	478	12	1 3.91

Cat. No			Marks	Bust		RIC	Qty	Weight
Issue 4								
	obv. IMP C M AVR CARVS P F AVG							
809	PAX AVGG	Pax 1	B - // -	B1	508	12	1	3.50
	obv. IMP C M AVR CARVS AVG							
810	AEQVITAS AVG	Aequitas 1	- A // -	B1	506	8	1	4.31
811	VICTORIA AVGG	Victory 13	A - // -	B1	502	24	2	4.10, 4.08
812	PAX AVGG	Pax 1	B - // -	B1	509	13	1	3.31
	obv. M AVR NVMERIANVS NOB C							
813	PRINCIPI IVVENTVT	Prince 1	C - // -	D2	513	356	1	3.23
	obv. CARINVS NOBIL CAES							
814	SAEVL FELICITAS	Emperor 2	- D // -	D1	522	152	1	3.51
†815	SAEVL FELICITAS	Emperor 2	- D // -	D1	523	152	1	4.14
Issue 6								
	obv. IMP C M AVR CARINVS AVG							
816	AEQVITAS AVG	Aequitas 1	- A // -	D1	533	212	6	4.13, 4.12, 3.82, 3.68, 3.64, 3.48
*817	SAEVL FELICITAS	Emperor 2	- D // -	D1	548	214	2	4.02, 3.46
	obv. IMP C M AVR NVMERIANVS AVG							
818	MARS VICTOR	Mars 2b	- C // -	D2	543	386	1	3.64
	obv. IMP C NVMERIANVS AVG							
819	PAX AVGG	Pax 1	B - // -	B1	539	394	3	4.70, 3.94, 3.20
820	MARS VICTOR	Mars 2b	- C // -	B1	544	388	3	4.19, 4.04, 3.58
	obv. IMP NVMERIANVS AVG							
*821	PAX AVGG	Pax 1	B - // -	G11.	557	395	1	3.22
Issue 7								
	obv. IMP C NVMERIANVS AVG							
822	FELICITAS AVGG	Felicitas 4	B - // LVG	B1	579	384	2	4.33, 3.35
Issue 8								
	obv. IMP C NVMERIANVS AVG							
823	FELICITAS AVGG	Felicitas 4	B - // -	B1	595	384	1	4.40
824	PIETAS AVGG	Pietas 7	- C // -	B1	596	396	2	4.05, 3.67
	obv. IMP NVMERIANVS AVG							
825	PIETAS AVGG	Pietas 7	- C // -	B1	598	397	6	4.76, 4.38, 4.22, 4.12, 3.74, 3.59
Issue 9								
	obv. IMP CARINVS P F AVG							
826	VICTORIA AVGG	Victory 3	A - // -	D1	612	220	1	3.94
	obv. IMP C NVMERIANVS AVG							
827	PACATOR ORBIS	Emperor 16	- - // C	B1	618	-	1	3.43
	obv. MAGNIA VRBICA AVG							
*828	VENVS GENETRIX	Venus 5	D - // -	E2	617	337	3	4.07, 3.97, 3.37
Issue 10								
	obv. DIVO CARO PIO							
829	CONSECRATIO	Eagle 2	- - // I	A1	622	29	2	3.87, 3.68
*830	CONSECRATIO	Eagle 2	- - // II	A1	623	29	3	4.03, 3.65, 3.50
831	CONSECRATIO	Eagle 2	- - // III	A1	624	29	2	4.02, 3.38
832	CONSECRATIO	Eagle 2	- - // IIII	A1	625	29	1	3.65
Rome (29)					Gricourt	RIC		
			// R(A-Z)					
	obv. M AVR CARINVS NOB CAES							
833	PIETAS AVGG	Sacrificial impl. 2	Z	D1	1638	155	1	4.01
			// (A-Z)AK					
	obv. M AVR CARINVS NOB CAES							
*834	PIETAS AVGG	Sacrificial impl. 2a	Z	D1	1652	155	1	3.39
			// (A-Z)KA					
	obv. IMP C M AVR CARVS P F AVG							
835	IOVI VICTORI	Jupiter 9	B	B1	1721	38	1	3.97
836	PROVIDENT AVGG	Providentia 2a	Δ	B1	1805	42	2	4.27, 3.90
	obv. M AVR CARINVS NOB CAES							
837	PRINCIPI IVVENTVT	Prince 1	ς	D1	1857	161	1	4.01
	obv. M AVR NVMERIANVS NOB C							
838	PRINCIPI IVVENTVT	Prince 1	ς	D2	1939	363	1	3.75

Gricourt RIC

// R(A-Z)

// (A-Z)AK

// (A-Z)KA

Cat. No			Marks	Bust	RIC	Qty	Weight
			// KA(A-Z)				
	obv. IMP CARVS P F AVG						
*839	IOVI VICTORI	Jupiter 9	B	B1	2199	39	1 4.32
840	VIRTVS AVG	Virtus 1	Γ	B1	2246	46	1 3.56
	obv. M AVR CARINVS NOB CAES						
841	PRINCIPI IVVENTVT	Prince 3a	ε	D1	2330	158	2 3.48, 3.44
	obv. M AVR CARINVS CAES						
842	PRINCIPI IVVENTVT	Prince 3a	ε	D1	2338	160	1 3.85
843	PIETAS AVGG implements 2a	Sacrificial	Z	D1	2410	157	1 4.07
	obv. M AVR NVMERIANVS NOB C						
844	PRINCIPI IVVENTVT	Prince 2d	Δ	D2	2287	361	1 4.20
			// KA(A-Z)				
	obv. IMP C M AVR CARINVS P F AVG						
*845	AETERNIT AVGG	Aeternitas 1	Γ	D1	2683	246	1 3.80
	obv. IMP C M AVR CARINVS AVG						
846	FIDES MILITVM	Fides 1	ε	D1	3012	252	1 3.79
	obv. IMP CARINVS P F AVG						
847	FIDES MILITVM	Fides 1	ε	B1	3123	253	2 4.18, 3.76
848	AEQVITAS AVGG	Aequitas 1	Z	B1	3359	239	1 2.86
	obv. IMP NVMERIANVS AVG						
849	IOVI VICTORI	Jupiter 9	B	B1	2588	410	2 4.62, 3.47
850	IOVI VICTORI	Jupiter 9	B	D2	3409	410	1 3.51
851	PIETAS AVGG	Mercury 1a	Δ	B1	2854	416	1 3.51
*852	VNDIQVE VICTORES	Emperor 10a	ς	B1	3194	423	1 2.88
853	ORIENS AVGG	Sol 7	ς	D2	3623	412	1 3.17
	obv. DIVO NIGRINIANO						
*854	CONSECRATIO	Eagle 1	A	A1	3774	472	1 3.36
			// KA crescent (A-Z)				
	obv. IMP CARINVS P F AVG						
855	AETERNIT AVG	Aeternitas 1	Γ	B1	4026	244	1 3.97
856	PIETAS AVG	Mercury 1a	Δ	B1	4067	264	1 4.03
			// KA dot-in-crescent (A-Z)				
	obv. IMP CARINVS P F AVG						
*857	PIETAS AVG	Mercury 1a	Δ	B1	4049	264	1 4.04
	Ticinum (36)						
	obv. M AVR NVMERIANVS NOB C						
858	PRINCIPI IVVENTVT	Prince 2d	-- // VIXXI	D2	442	366	1 3.12
	obv. IMP CARVS P F AVG						
859	PAX EXERCITI	Pax 6	-- // PXXI	B1	483	75	5 4.18, 4.11, 3.66, 3.15, 3.11
860	SPES PVBLICA	Spes 1	-- // SXXI	B1	668	82	5 3.90, 3.67, 3.55, 3.50, 3.40
	obv. IMP CARINVS P F AVG						
861	FELICIT PVBLICA	Felicitas 4	-- // TXXI	D1	868	295	5 4.34, 3.80, 3.71, 3.64, 3.42
862	FELICITAS PVBLICA	Felicitas 4	-- // QXXI	D1	1023	295	1 3.99
863	FELICIT PVBLICA	Felicitas 4	-- // QXXI	D1	1024	295	3 4.08, 4.03, 3.44
	obv. IMP NVMERIANVS P F AVG						
864	PROVIDENT AVGG	Providentia 4	-- // VXXI	D2	1193	447	2 5.32, 3.78
865	PROVIDENT AVGG	Providentia 4	-- // VIXXI	D2	1314	447	1 4.33
866	PROVID(EN)T AVGG	Providentia 4	-- // [?]XXI	D2	1459	447	1 3.85
	obv. IMP CARVS P F AVG						
867	FIDES MILIT	Fides 1	T -- // PXXI	B1	1463	70v	1 4.26
	obv. IMP CARINVS P F AVG						
868	VICTORIA AVG	Victory 3	T -- // QXXI	D1	1477	304	1 3.76
	obv. IMP CARVS P F AVG						
*869	FIDES MILIT	Fides 1	-- // PXXIT	B1	1495	70	1 3.86

Car. No			Marks	Bust		RIC	Qty	Weight
obv. MAGNIA VRBICA AVG								
*870	VENVS VICTRIX	Venus 1b	- - // SXXIT	E2	1504	347	3	4.22, 3.90, 3.76
obv. IMP M AVR CARINVS P F AVG								
*871	FORTVNA REDVX	Fortuna 1a	- - // TXXIT	D1	1530	299	1	4.01
872	FORTVNA RED	Fortuna 1a	- - // TXXIT	D1	—	299	2	4.06, 3.90
876	VICTORIA AVG	Victory 3	- - // QXXI	D1	1553	305	1	4.02
obv. IMP NVMERIANVS P F AVG								
874	ROMAE AETERN	Roma 2	- - // VIXXIT	D2	1582	449	2	4.39, 3.86
Siscia (1)								
obv. M AVR CARINVS NOB CAES								
875	PRINCIPI IVVENTVT	Prince 2c	* - // XXIT	D2	—	198	1	4.09
DIOCLETIAN & MAXIMIAN								
Lyon (230)								
Issue 1a								
obv. IMP C C VAL DIOCLETIANVS P F AVG								
876	VICTORIA AVG	Victory 1	A - // -	D2	8	91	3	3.70, 3.54, 2.91
877	FELICITAS AVG	Felicitas 4	B - // -	D2	11	19	1	4.28
878	SALVS AVG	Salus 2	- B // -	D2	10	85	2	3.71, 3.59
879	PROVIDENTIA AVG	Providentia 4	- C // -	D2	13	77	3	3.84, 3.78, 3.77
880	PROVIDENTIA AVG	Providentia 4	see note	D2	15	77v	1	4.13
*†881	PROVIDENTI AVG	Providentia 4	- C // -	D2	—	—	1	4.07
882	FELICITAS AVG	Felicitas 4	D - // -	D2	16	19	2	3.64, 3.55
Issue 1b								
obv. IMP C C VAL DIOCLETIANVS P F AVG								
883	IOVI CONSERVAT AVG	Jupiter 1	A - // -	D2	18	41	15	5.08, 4.85, 4.27, 4.20, 4.11, 3.99, 3.95, 3.82, 3.70, 3.62, 3.59, 3.58, 3.50, 3.05, 2.91
884	IOVI CONSERVAT AVG	Jupiter 1	B - // -	D2	21	41	5	4.49, 3.93, 3.91, 3.87, 2.85
885	IOVI CONSERVATORI	Jupiter 1	C - // -	D2	24	47	6	4.05, 3.85, 3.84, 3.75, 3.60, 3.54
†886	IOVI CONSERVATORI	Jupiter 1	see note	D2	26	47	1	4.07
887	IOVI CONSERVATORI	Jupiter 1	D - // -	D2	27	47	4	4.90, 4.48, 4.09, 3.56
Issue 2								
obv. IMP C C VAL DIOCLETIANVS P F AVG								
888	IOVI CONSERVAT AVGG	Jupiter 1	A - // -	D2	50	43	14	4.42, 4.38, 4.34, 4.26, 4.15, 4.04, 4.00, 3.66, 3.62, 3.53, 3.47, 3.37, 3.36, 3.31
889	IOVI CONSERVAT AVGG	Jupiter 1	B - // -	D2	54	43	17	4.81, 4.44, 4.39, 4.34, 4.21, 4.06, 4.01, 3.95, 3.91, 3.75, 3.72, 3.71, 3.69, 3.68, 3.53, 3.49, 3.47
890	VIRTVS AVGG	Jupiter and Hercules 1	C // -	D2	61	93v	1	4.21
obv. IMP C VAL MAXIMIANVS P F AVG								
891	IOVI CONSERVATORI	Jupiter 1	C - // -	D1	60	388v	2	4.46, 4.11
†892	IOVI CONSERVATORI	Jupiter 1	see note	D1	64	388	4	4.06, 3.91, 3.88, 3.51
893	SALVS AVGG	Salus 2	C - // -	D1	56	417	7	4.14, 4.12, 4.09, 3.73, 3.63, 3.36(2)
894	VIRTVS AVGG	Hercules 1	C - // -	D1	59	437	2	3.58, 3.20
895	VIRTVS AVGG	Jupiter and Hercules 1	C // -	D1	62	432	2	4.67, 3.64
896	IOVI CONSERVATORI	Jupiter 1	D - // -	D1	70	388	2	4.59, 3.69
897	VIRTVS AVGG	Hercules 1	D - // -	D1	67	437	4	5.00, 3.92, 3.64, 3.61

Cat. No			Marks	Bust	RIC	Qty	Weight
*898	VIRTVS AVGG	Jupiter and Hercules 1	D // -	D1	71	432	4 3.92, 3.81, 3.54, 3.46
899	VIRTVS AVGG	Jupiter and Hercules 1	- // -	D1	74	-	1 4.23
Issue 2/3							
obv. IMP C C VAL DIOCLETIANVS P F AVG							
*1900	IOVI CONSERVAT AVGG	Jupiter 1c	A // -	D2	-	-	1 4.30
Issue 3							
obv. IMP C C VAL DIOCLETIANVS P F AVG							
901	IOVI CONSER AVGG	Jupiter 1c	A // -	D2	76	35	1 4.03
902	IOVI CONSER AVGG	Jupiter 1c	B // -	D2	83	35	2 3.88, 3.54
903	IOVI CONSER AVGG	Jupiter 1c	- B // -	D2	89	35	1 3.97
obv. IMP C VAL MAXIMIANVS P F AVG							
904	HERCVLI PACIFERO	Hercules 3	Γ // -	D1	92	371	4 3.93, 3.78, 3.65, 3.39
905	HERCVLI PACIFERO	Hercules 3	Δ // -	D1	95	379	2 4.42, 3.44
obv. IMP C VAL MAXIMIANVS AVG							
906	HERCVLI PACIFERO	Hercules 3	Γ // -	D1	94	-	1 4.12
Issue 4							
obv. IMP C C VAL DIOCLETIANVS P F AVG							
907	IOVI CONSER AVGG	Jupiter 1c	- A // SML	D2	98	35	1 3.15
obv. IMP C VAL MAXIMIANVS P F AVG							
908	HERCVLI PACIFERO	Hercules 3	B // SML	D1	116	371	2 4.13, 3.79
obv. IMP C MAXIMIANVS P AVG							
*909	HERCVLI PACIFERO	Hercules 3	B // SML	B1	-	-	1 3.78
Issue 5							
obv. IMP C C VAL DIOCLETIANVS P AVG							
910	IOVI TVTATORI AVGG	Jupiter 9	- // P	D2	141	51	1 3.84
obv. IMP C DIOCLETIANVS P F AVG							
911	IOVI TVTATORI AVGG	Jupiter 9	- // P	D2	143	53	6 5.95, 4.31, 4.09, 4.04, 4.00, 3.16
obv. IMP C DIOCLETIANVS P AVG							
912	IOVI TVTATORI AVGG	Jupiter 9	- // P	D2	145	54	1 4.15
913	IOVI TVTATORI AVGG	Jupiter 9	- // P	G11	147	54	1 4.18
obv. IMP C MAXIMIANVS P F AVG							
914	VIRTVTI AVG	Hercules and lion 1	- // -	B1	214	454	2 3.82, 3.31
915	VIRTVTI AVG	Hercules and lion 1	- // -	D1	213	454	2 4.50, 4.38
obv. IMP C MAXIMIANVS AVG							
*916	VIRTVTI AVG	Hercules and lion 1	- // -	H1	222	-	1 4.14
Issue 6							
obv. IMP DIOCLETIANVS AVG							
*917	IOVI AVGG	Jupiter 1c	- // P	D2	246	28	3 4.95, 3.86, 3.44
obv. IMP C MAXIMIANVS P F AVG							
918	PAX AVGG	Pax 7	- // 5	B1	277	396	3 4.55, 4.03, 3.92
Issue 7							
obv. IMP DIOCLETIANVS P AVG							
919	IOVI AVGG	Jupiter 1c	- // A	K41	312	27	1 3.83
920	SECVRIT PERP	Securitas 4	- // A	D1	345	82	1 4.22
*1921	SALVS AVGG	Salus 2	- // C	B31	Sup.I, 396a	-	1 3.89
obv. IMP DIOCLETIANVS AVG							
922	IOVI AVGG	Jupiter 1c	- // A	B1	315	28	3 4.55, 4.38, 3.52
923	IOVI AVGG	Jupiter 1c	- // A	D1	314	28	2 4.05, 3.91
*924	IOVI AVGG	Jupiter 1c	- // A	B31	316	28	1 3.61
*925	IOVI AVGG	Jupiter 1c	- // A	G11	319	28	1 4.18
*926	IOVI AVGG	Jupiter 1c	- // A	K11	321	28	1 3.68
927	IOVI AVGG	Jupiter 1c	- // A	K41	323	28	15 4.67, 4.19, 4.16, 3.96, 3.87, 3.78, 3.74, 3.72, 3.68, 3.58, 3.55, 3.54, 3.50, 3.24(2)
928	IOVI AVGG	Jupiter 1c	- // A	K51	322	28	1 3.42
*929	SECVRIT PERP	Securitas 4	- // A	B1	347a	-	1 4.14
930	SECVRIT PERP	Securitas 4	- // A	K41	348	83	1 4.27
931	SALVS AVGG	Salus 2	- // C	K41	402	89	4 3.86, 3.80, 3.55, 3.42
*932	SECVRIT PERP	Securitas 4	- // C	D1	Sup.II, 417a	-	1 4.54

Car. No		Marks	Bust	RIC	Qty	Weight
<i>obv. IMP MAXIMIAVS P F AVG sic</i>						
*†933	SALVS AVGG	Salus 2	-- // C	KSl.	–	1 4.44
<i>obv. IMP MAXIMIANVS P AVG</i>						
934	SALVS AVGG	Salus 2	-- // C	B1	406	421 1 3.70
935	SALVS AVGG	Salus 2	-- // C	K4l.	408	421 1 4.58
<i>obv. IMP MAXIMIANVS AVG</i>						
936	IOVI AVGG	Jupiter 1c	-- // A	D1	330	384 2 4.09, 3.71
937	IOVI AVGG	Jupiter 1c	-- // A	K4l.	338	384 2 4.02, 3.66
938	FELICIT PVBL	Felicitas 4	-- // B	B1	357	360 2 3.84, 3.74
939	SALVS AVGG	Salus 2	-- // C	B1	410	422 5 3.91, 3.80, 3.73, 3.65, 3.61
940	SALVS AVGG	Salus 2	-- // C	D1	409	422 2 4.22, 3.68
941	SALVS AVGG	Salus 2	-- // C	K11.	414	422 2 3.82, 3.32
942	SALVS AVGG	Salus 2	-- // C	K4l.	416	422 4 4.31, 4.06, 4.01, 3.73
943	SALVS AVGG	Salus 2	-- // C	KSl.	415	422 1 3.84
<i>Issues 7-8</i>						
<i>obv. IMP DIOCLETIANVS AVG</i>						
944	PAX AVGG	Pax 7	-- // B	B1	365	67 1 4.15
945	PAX AVGG	Pax 7	-- // B	D1	364	67 1 4.39
†946	PAX AVGG	Pax 7	-- // B	K4l	369	67 1 3.82
<i>obv. IMP MAXIMIANVS P AVG</i>						
947	PAX AVGG	Pax 7	-- // B	B1	374	398 1 3.67
948	PAX AVGG	Pax 7	-- // B	K4l	378	398 2 4.00, 3.40
<i>obv. IMP MAXIMIANVS AVG</i>						
949	PAX AVGG	Pax 7	-- // B	B1	380	399 10 4.78, 4.58, 4.25, 4.12, 4.02, 3.94, 3.91, 3.56, 3.36, 3.30
950	PAX AVGG	Pax 7	-- // B	D1	379	399 3 4.12, 3.78, 3.54
951	PAX AVGG	Pax 7	-- // B	H1	381	399 2 3.55(2)
952	PAX AVGG	Pax 7	-- // B	K4l.	387	399 9 4.34, 4.03, 4.03, 4.01, 3.98, 3.75, 3.57, 3.44, 3.41
<i>Issue 8</i>						
<i>obv. IMP DIOCLETIANVS AVG</i>						
*953	IOVI AVGG	Jupiter 6	-- // A	B1	436	34 1 4.60
<i>Issue 10</i>						
<i>obv. IMP MAXIMIANVS AVG</i>						
*†954	VOTIS X	Emperors (two) 2	-- // -	K4l	531	467 1 3.56
*†955	VOTIS X	Emperors (two) 2	-- // -	K4l	531v	467 1 3.64
<i>Rome (5)</i>						
				<i>Gricourt</i>	<i>RIC</i>	
<i>obv. IMP DIOCLETIANVS AVG</i>						
956	VICTORIA AVG	Victory 1	-- // XXIA	D2	6979	cf183 1 3.62
*957	MARTI PACIF	Mars 4	-- // XXIE	D2	7127	173 1 3.96
958	IOVI CONSERVAT AVG	Jupiter 1	-- // XXII*	D2	7629	161 1 3.33
959	IOVI CONSERVAT AVG	Jupiter 1	-- // XXIE	D2	7326	161 1 2.78
<i>obv. IMP MAXIMIANVS PF AVG</i>						
960	IOVI CONSERVAT AVGG	Jupiter 1	-- // XXIZ	D1	7551	506 1 3.35
<i>Ticinum (41)</i>						
				<i>Gricourt</i>	<i>RIC</i>	
<i>obv. IMP C C VAL DIOCLETIANVS PF AVG</i>						
<i>First phase</i>						
961	VICTORIA AVG	Victory 3	-- // PXXIT	D1	4499	242 1 3.61
962	CONSERVAT AVG	Sol 7	-- // SXXIT	D1	4574	206 2 4.51, 2.73
963	FORTVNA RED	Fortuna 1a	-- // TXXIT	D1	4636	209 1 4.73
964	VIRTVS AVG	Virtus 1	-- // QXXIT	D1	4684	244 2 4.12, 3.81
965	PROVIDENT AVG	Providentia 1	-- // VXXIT	D1	4775	240 1 3.90
†966	MARS VICTOR	Mars 2b	-- // VIXXIT	D1	4864	239c 2 4.19, 3.47
<i>Second and later phases</i>						
967	IOVI CONSERVAT	Jupiter 1a	-- // SXXIT	B1	5276	220 1 3.56
968	IOVI CONSERVAT	Jupiter 1a	-- // SXXIT	D1	5212	220 1 3.53
969	IOVI CONSERVAT	Jupiter 1a	-- // QXXIT	D1	5681	220 1 4.20

Cat. No			Marks	Bust		RIC	Qty	Weight
970	IOVI CONSERVAT	Jupiter Ia	--- // VXXIT	B I	5836	220	1	3.61
971	IOVI CONSERVAT	Jupiter I	--- // PXXIT	B I	5008	222	3	4.27, 4.15, 3.50
972	IOVI CONSERVAT	Jupiter I	--- // TXXIT	B I	5427	222	3	4.55, 4.02, 2.75
973	IOVI CONSERVAT	Jupiter I	--- // TXXIT	D I	5357	222	5	4.75, 4.59, 4.16, 3.83, 3.80
974	IOVI CONSERVAT	Jupiter I	--- // VIXXIT	D I	5845	222	2	4.95, 4.63
*975	HERCVLI CONSERVAT	Hercules I	--- // SXXIT	D I	5944	212	1	3.90
*976	HERCVLI CONSERVAT	Hercules I	--- // PXXIT	B I	6273	212	1	3.79
	obv. IMP C C VAL DIOCLETIANVS AVG							
977	IOVI CONSERVAT	Jupiter I	--- // PXXIT	B I	5159	223	2	4.40, 3.97
	obv. IMP C VAL DIOCLETIANVS AVG							
978	IOVI CONSERVAT	Jupiter I	--- // PXXIT	B I	6076	225	3	4.36, 3.74, 3.52
979	IOVI CONSERVAT	Jupiter I	--- // SXXIT	B I	6377	225	2	3.71, 3.65
	obv. IMP C M A VAL MAXIMIANVS PF AVG							
980	IOVI CONSERVAT	Jupiter I	--- // PXXIT	D I	6203	558	2	3.65, 3.52
*981	IOVI CONSERVAT	Jupiter I	--- // TXXIT	D I	6777	558	3	4.22, 3.68, 3.47
	obv. IMP C M A VAL MAXIMIANVS AVG							
*982	IOVI CONSERVAT	Jupiter IO	--- // SXXIT	B I	—	560	1	3.66

D: 'BRITISH' EMPIRE, c.287-96

CARAUSIUS

Unmarked and uncertain coins (3)

					Carson	RIC		
	obv. VIRTVS CARAVSI							
*983	VICTORIA AVG	Victory 3	--- // *	H I L	—		1	3.56
	obv. IMP CARAVSIVS P AVG							
984	PAVX AVG (?)	Pax Ib	S P // III	D I	1096?		1	5.68
*†985	SALVS AVG	Pax Ib	--- // *	D I	as 996		1	4.25

London (3)

	obv. IMP CARAVSIVS PF AVG							
*986	LEG XXX VLP IA	Neptune 2	--- // ML	D I	84v		1	4.90
*†987	PAX AVG	Pax Ib(?)	F O // ML	D I	101		1	3.86
	obv. IMP C CARAVSIVS PF AVG							
*988	PAX AVGGG	Pax Ib	S P // MLXXI	D I	8	141	1	3.58

C mint (10)

	obv. IMP CARAVSIVS PF AVG							
989	MONETA AVG	Moneta I	--- // C	D I	287		1	4.24
*990	SALVS AVG	Salus 5	--- // CXXI	D I	401		1	5.14
	obv. IMP C CARAVSIVS P AVG							
*†991	PROVIDENTIA AVG	Providentia Ia	S C // C	D I	374v		1	4.54
*†992	SPES PVBLICA	Spes I	S P // C	D I	—		1	4.59
	obv. IMP C CARAVSIVS AVG							
993	PAX AVG	Pax Ib	S P // C	D I	302		1	4.39
*†994	SPES PVBLIC	Spes I	S P // C	D I	—		1	4.26
	obv. IMP C CARAVSIVS PF AVG							
995	PAX AVGGG	Pax Ib	S P // C	D I	11	334	1	4.48
*996	PAX AVGGG	Pax I	S P // C	D I	27	—	2	4.52, 4.21

	obv. IMP C CARAVSIVS AVG							
*997	PAX AVGGG	Pax Ib	S P // MC	D I	—	cf. 336	1	3.70

DIOCLETIAN, MAXIMIAN

London (5)

	obv. IMP C DIOCLETIANVS PF AVG							
*998	IOVI CONSERVAT AVGGG	Jupiter II	S P // MLXXI	B I	—	—	1	4.21
999	PAX AVGGG		S P // MLXXI	D I	—	9	1	4.52
	obv. IMP C MAXIMIANVS PF AVG							
*†1000	PAX AVGGG	Pax I	S P // MLXXI	B I	18	34	1	4.34

<i>Cat. No</i>			<i>Marks</i>	<i>Bust</i>		<i>RIC</i>	<i>Qty</i>	<i>Weight</i>
*1001	SALVS AVGGG	Salus 2	S P // MLXXI	BI	—	38	1	4.13
*†1002	obverse brockage			BI	—	—	1	4.80
	C mint (3)							
	obv. IMP C DIOCLETIANVS AVG							
*†1003	MONETA AVGGG	Moneta 1	S P // C	BI	7	—	1	4.26
	obv. IMP C MAXIMIANVS P AVG							
1004	PROVID AVGGG	Providentia 1	S P // C	BI	—	—	1	4.34
	obv. CARAVSIVS ET FRATRES SVI							
*†1005	VICTORIA AGGG sic	Victory 8	S P // C	NII.	—?	—	1	4.59
	ALLECTUS							
	Aureliani (3)					Burnett	RIC	
	London (1)							
	obv. IMP C ALLECTVS P F AVG							
*1006	ORIENS AVG	Sol 3	S P // ML	BI	9	26	1	3.33
	C mint (2)							
	obv. IMP C ALLECTVS P F I AVG							
*†1007	LAETITIA AVG	Laetitia 1	S P // C	DI	136	—	1	3.97
	obv. IMP C ALLECTVS P F AVG							
*†1008	FIDES MILIT	Fides 1	S P // C	DI	—	—	1	4.26
	Q-radiates (757)							
	London (295)					Burnett	RIC	
	obv. IMP C ALLECTVS P F AVG							
	rev. VIRTVS AVG							
1009	1. Galley to left, no mast	-- // QL	BI	108	55	2	2.82, 2.71	
*†1010	2. Galley to right, no mast	-- // QL	BI	110	55	2	2.65, 2.63	
*†1011		-- // QL	BI	110	55	2	2.68, 2.27	
*†1012		-- // QL	BI	110	55	1	2.97	
*†1013		-- // QL	BI	110	55	1	2.70	
*1014	3. Galley to left, with mast and ram	-- // QL	DI	112	55	25	3.43, 3.40, 3.38, 3.35, 3.25, 3.23, 3.18, 3.17, 3.15, 3.12, 3.10, 3.09, 3.07, 3.05, 2.97, 2.96, 2.89, 2.88, 2.85, 2.81(2), 2.75, 2.70(2), 2.56	
*1015		-- // QL	D2	113	55	15	3.86, 3.58, 3.46, 3.32, 3.22, 3.02, 3.02, 2.89, 2.73, 2.70, 2.63, 2.60, 2.57, 2.49, 2.39	
*†1016		-- // QL	D2	113	55	1	3.13	
*1017		-- // QL	BI	111	55	213	4.48, 4.07, 4.05, 3.98, 3.85, 3.77(2), 3.67, 3.65, 3.63, 3.62, 3.58, 3.55, 3.54, 3.48, 3.46(2), 3.44, 3.43, 3.41, 3.40(2), 3.39(2), 3.38, 3.36(2), 3.32, 3.31(5), 3.26(2), 3.25(5), 3.23(5), 3.22(2), 3.21, 3.20, 3.19, 3.17, 3.16(2), 3.15, 3.14, 3.13, 3.12(4), 3.11, 3.10, 3.08(3), 3.07	

<i>Cat. No</i>	<i>Marks</i>	<i>Bust</i>	<i>RIC</i>	<i>Qty</i>	<i>Weight</i>
					3.06(2), 3.04 (2), 3.03(5), 3.02(2), 3.01, 3.00, 2.99(5), 2.98, 2.97, 2.96, 2.96(2), 2.95(3), 2.94(2), 2.93, 2.93, 2.92(4), 2.91(5), 2.89(3), 2.88(2), 2.87(4), 2.86(2), 2.85(2), 2.84(2), 2.83(6), 2.82(4), 2.81(2), 2.80(4), 2.79(6), 2.78, 2.78, 2.76(3), 2.75(4), 2.74(4), 2.73, 2.72(2), 2.69(5), 2.68, 2.67(5), 2.66, 2.65, 2.64(4), 2.63, 2.62(4), 2.60, 2.56, 2.54(2), 2.53, 2.51, 2.50(2), 2.49(3), 2.47, 2.46(3), 2.44, 2.43(2), 2.42, 2.40, 2.39, 2.36(2), 2.34, 2.33, 2.32, 2.30(2), 2.29, 2.25, 2.19, 2.09, 2.08
*†1018	-- // QV	B1	—	1	3.19
*1019	4. Galley to right, with mast and ram	D1	—	55	1 2.59
*1020	-- // QL	B1	—	55	26 3.89, 3.87, 3.70, 3.66, 3.45, 3.16(2), 3.12, 3.11(2), 3.08, 3.05, 2.94(2), 2.88, 2.85, 2.78, 2.76, 2.69, 2.66, 2.62, 2.57, 2.52, 2.50(3)
*†1021	5. Boat to left	-- // QL	B1	(108)	55 1 3.55
*†1022	-- // QL	B1	(111)	55	1 3.54
*†1023	-- // QL	B1	(111)	55	1 2.91
*†1024	-- // QL	B1	(111)	55	1 2.76
*1025	6. Light craft to right, with mast	-- // QL	B1	—	55 1 2.89
C mint (462)					
<i>rev.</i> LAETITIA AVG					
1a. Galley to left, no cabin; waves					
*1026	<i>obv.</i> IMP C ALLECTVS P F I AVG	B1	—	—	1 3.14
*1027	<i>obv.</i> IMP C ALLECTVS P F AVG	B1	214	124	5 3.16, 3.10, 3.07, 3.04, 2.78
*1028	<i>obv.</i> IMP C ALLECTVS P AVG	B1	—	125	2 3.10, 3.04
1b. Galley to right, no cabin; waves					
*1029	<i>obv.</i> IMP C ALLECTVS P I FE AVG	B1	—	127	2 3.33, 3.31
*1030	<i>obv.</i> IMP C ALLECTVS P F I AVG	B1	212	—	5 3.07, 3.01, 2.99, 2.97, 2.73
*1031	<i>obv.</i> IMP C ALLECTVS P F AVG	B1	210	124	25 4.15, 3.67, 3.48, 3.44, 3.31, 3.27, 3.19, 3.18, 3.16, 3.14(2), 3.12, 3.08, 3.07, 3.06, 3.02, 3.01, 3.00, 2.99, 2.98, 2.93, 2.89(2), 2.85, 2.76
*1032	<i>obv.</i> IMP C ALLECTVS P AVG	B1	211	125	17 3.46, 3.34, 3.23, 3.21, 3.16, 3.12, 3.07, 3.04, 3.03(2), 3.01, 2.96, 2.79, 2.76, 2.73(2), 2.42

<i>Cat. No</i>		<i>Marks</i>	<i>Bust</i>	<i>RIC</i>	<i>Qty</i>	<i>Weight</i>
1033	<i>obv.</i> IMP ALLECTVS P AVG 2. Galley to right, no cabin; no waves		B1 -	-	1	2.26
*1034	<i>obv.</i> IMP C ALLECTVS P F AVG		B1 210	124	18	3.53, 3.34, 3.33, 3.24, 3.14(2), 3.13(2), 3.10, 2.98, 2.96, 2.93, 2.86, 2.83, 2.81, 2.76, 2.65, 2.58
*1035	<i>obv.</i> IMP C ALLECTVS P AVG		B1 211	125	35	3.69, 3.43, 3.42, 3.40, 3.35(2), 3.32, 3.30, 3.22, 3.20, 3.14, 3.09(2), 3.08, 3.07, 3.04, 3.02, 3.01, 3.00(2), 2.97, 2.93, 2.92, 2.91, 2.89, 2.86, 2.85(2), 2.84, 2.81, 2.80, 2.79, 2.74, 2.72, 2.62
*1036	<i>obv.</i> IMP C ALLECTVS AVG		B1 -	126	18	3.71, 3.45, 3.32, 3.28, 3.18, 3.14, 3.06, 3.05, 2.94(2), 2.91, 2.88(2), 2.74, 2.73, 2.64, 2.61, 2.51
*1037	<i>obv.</i> IMP ALLECTVS P AVG 3. Galley to right, with cabin; no waves		B1 -	-	1	2.60
*1038	<i>obv.</i> IMP C ALLECTVS AVG <i>rev.</i> VIRTVS AVG	- // QC	B1 -	-	1	3.20
	Galley to left, with cabin; no waves					
*†1039	<i>obv.</i> IMP C ALLECTVS P FEL AVG		B1 -	-	2	3.21, 2.97
*†1040	<i>obv.</i> IMP C ALLECTVS P F I AVG		B1 -	-	2	3.24, 3.02
*1041	<i>obv.</i> IMP C ALLECTVS P F AVG		B1 215	128	206	3.92, 3.63, 3.59, 3.52, 3.51, 3.50(2), 3.45, 3.43, 3.42, 3.40, 3.39, 3.37, 3.36, 3.34, 3.34(2), 3.30, 3.29, 3.28, 3.27(3), 3.26, 3.26(2), 3.25(2), 3.24, 3.24, 3.23(2), 3.22(4), 3.20, 3.19, 3.19(2), 3.18, 3.17, 3.16(3), 3.15, 3.15(2), 3.14, 3.14(5), 3.13, 3.13(2), 3.12(3), 3.11, 3.10, 3.10(3), 3.09(2), 3.08, 3.08(5), 3.07, 3.07(2), 3.06(2), 3.05(4), 3.04, 3.04(6), 3.03(2), 3.03(3), 3.01(2), 3.00(2), 2.99(2), 2.99(5), 2.98(3), 2.97(2), 2.96(2), 2.95(5), 2.94(2), 2.93, 2.92(2), 2.91, 2.91(5), 2.90, 2.90(2), 2.89, 2.88 (2), 2.87(5), 2.86(4), 2.85(2), 2.85, 2.84, 2.83, 2.81(2),

<i>Cat. No.</i>	<i>Marks</i>	<i>Bust</i>	<i>RIC</i>	<i>Qty</i>	<i>Weight</i>
					2.80(8), 2.79, 2.78, 2.78, 2.77(3), 2.76(2), 2.75, 2.75(2), 2.74, 2.74(3), 2.73, 2.73(2), 2.72, 2.72, 2.71, 2.70, 2.70, 2.69, 2.69(2), 2.68, 2.67, 2.66, 2.65(2), 2.61(2), 2.60, 2.60(2), 2.59, 2.58, 2.57, 2.55, 2.55(2), 2.52, 2.51, 2.46(2), 2.36, 2.35
*†1042		B 219	—	1	2.79
*1043	<i>obv.</i> IMP C ALLECTVS P AVG	B 216	—	86	3.60, 3.59, 3.56, 3.55, 3.49, 3.48, 3.45, 3.43, 3.38, 3.37, 3.36, 3.36, 3.33, 3.32, 3.31, 3.30, 3.30(3), 3.28(2), 3.26, 3.25, 3.24(2), 3.22, 3.21, 3.20, 3.19(2), 3.15, 3.14, 3.13, 3.12, 3.11(2), 3.09, 3.09(2), 3.07, 3.02, 3.00, 2.98(2), 2.97, 2.96(2), 2.95(3), 2.94 (2), 2.91(2), 2.89(2), 2.86(2), 2.83, 2.82, 2.80(2), 2.79, 2.78, 2.77(3), 2.76, 2.76, 2.74, 2.72, 2.72(2), 2.71(2), 2.70(2), 2.69, 2.68, 2.68(2), 2.66, 2.62, 2.58, 2.50, 2.44
*†1044		B —	—	1	2.44
*†1045		B —	—	1	2.80
*†1046		B —	—	1	2.76
*1047	<i>obv.</i> IMP C ALLECTVS AVG	B 217	129	29	3.75, 3.45, 3.36, 3.34, 3.28, 3.27, 3.24, 3.22, 3.20, 3.17(2), 3.15, 3.11, 3.07, 3.04, 3.01, 2.99, 2.95, 2.94, 2.91(2), 2.89, 2.83, 2.77, 2.73, 2.65, 2.64, 2.61, 2.48
*†1048		B —	—	2	3.42, 2.89
E: COUNTERFEITS & MISCELLANEOUS					
Counterfeits (II)					
<i>'Gordian III'</i>					
	<i>obv.</i> IMP GORDIANVS PIVS FEL AVG				(RIC)
*†1049	VICTORIA AVGG	Victory I	D2	—	1 3.77
<i>'Claudius II'</i>					
	<i>obv.</i> IMP C CLAVDIVS AVG				
*†1050	Blundered; Pax type?		D2?	—	1 2.17

Cat. No	Marks	Bust	RIC	Qty	Weight
<i>'Postumus'</i>					
<i>(Elmer)</i>					
obv. IMP C POSTVMVS P F AVG					
*1051 MINER FAVTR	Minerva 3	D1	as E.313	1	2.60
*†1052 P M [TRP III] COS III P P	Mars 2b	D1	as E.332	1	4.72
*†1053 PAX AVG running	Pax 4	D1	as E.333	2	3.46, 2.30
†1054 SALVS POSTVMI AVG	Salus 2	D1	as E.414	1	2.35
*†1055 PAX AVG standing	Pax 1	D1	as E.566	2	2.82, 2.19
<i>'Victorinus'</i>					
obv. IMP C VICTORINVS P F AVG					
*†1056 INVICTVS	Sol 7	D1	as E.683	1	2.88
<i>'Tacitus'</i>					
<i>(Estiot)</i>					
obv. IMP C M CL TACITVS AVG					
*†1057 AEQVITAS AVG	Aequitas 1	- - // 1 + +	D1	1117	1 3.21
<i>Miscellaneous (17)</i>					
1058 Tacitus/TEMPORVM FELICITAS	Lyon			1	cluster of eight coins, uncleaned
Tacitus/uncertain reverse	Lyon	D1		2	
Probus/uncertain reverse	Lyon, 6-9	D2		1	
Uncertain/PAX AVG	- V // X []			1	
Uncertain				3	
1059 Probus/COMES AVG	Lyon, 9: A - // -			1	cluster of four coins, uncleaned
Probus/FIDES MILITVM	Lyon?: - - // ?			1	
Diocletian/IOVI CONSERVAT	Lyon: ? - // -			1	
Uncertain				1	
1060 Tacitus/uncertain reverse	Lyon			1	cluster of three coins, uncleaned
Probus/TEMPOR FELICIT	Lyon, 9: 8 - // -			1	
Probus/CON[...]	Ticinum, 3: K41.			1	
	obv. 2				
1061 Tacitus/uncertain reverse	Lyon: obv. 3	D1		1	fused pair, uncleaned
Probus/uncertain reverse	Rome: obv. 4	K41.		1	

Notes to catalogue

11	Reverse proper to Valerian I	248	(= off. VI)
43	Z reversed	250	Unrecorded for Q?
77	Reversed epsilon. I. field	265/2	Emperor and Jupiter appear both to clasp the globe
85	X in r. field, not l.		
88	Obverse punctuated	266	E. and J. appear both to clasp the globe
97	Two pellets below bust on obv.	267/2-3	E. and J. appear both to clasp the globe
98	One pellet below bust, obv.	268	No sceptre. cf. Estiot 6690 (off. S)
119	Globe to left, by Aesculapius's right foot	288	Same rev. die as E.8303
130	Dies XVII/9, XXIX/36 and XXXIII/36	297	? a dolphin, or ? Δ
138	λ = branch symbol	314	Bust: cf. E.10783 in off. Δ
139	' = leaf symbol	315	Same dies as B.23a; same obv. die as BnF 1400
140	λ = branch symbol	328	Two same obv. die = B.63?
141	' = leaf symbol	332	Same dies as B.70a
142	Obverse, bust of Marius	334	Second coin same rev. die as B.75c
180	Z reversed	335	Same rev. die as B.76b
196	No sceptre	344	? same rev. die as B.87
201	Same dies as Estiot 1777	357-8	B reversed. I. field
208	No sceptre	364	One coin (364/18) A on rev. re-engraved over Δ
212	Obv. die link 212/3 = 213/3	372	Same dies as B.123a
245	Style appears to be Ticinum; cf. La Venèra 5808 and BnF 659, both different dies, attributed to Ticinum by Estiot	415	Obv 'Lyon' style: same dies as La Venèra 1923
		419	Engraver α
		420	Engraver α

421	Engraver β	611	Misprint in <i>RIC</i> : obv. 8 for 4
422	Engraver β	612	Misprint in <i>RIC</i> : S for s
423	'Hybrid' rev. marks?	614	Officina variant of 184
425	Same dies as E.2404	615	Officina variant of 201
427	Different rev. die from B.128	628	Misprint in <i>RIC</i> ?
443	Engraver β	644	Reverse legend variant
444	Engraver β?	645	Bust variant
445	Engraver β	651/3	One with 21 mm dies
446	Engraver β	652/1	19 mm rev. die
464	Mule with reverse of Issue 2	654	19 mm rev. die
473	Obv. type as B.206; new die? Same rev. die as B. Sup.II, 202α	658	21 mm dies: the form of bust (B1 with aegis) suggests that this may belong with the 'special bust' coins of Issue 3
474	Same obv. die as B.218c-d	667	22 mm dies
475	New obv. die?	669	22 mm dies?
476	Same obv. die as B.257a-b?	672	Shield with geometric decoration
477	Same dies as B.241a and c	676	Nude bust; spear, aegis; helmet
478	New obv. dies?	680	Shield: emperor riding r., leading troops
479	Same dies as B.210a	689	Bust and lettering place this here, not in issue 2
480/1	Same dies as B.211c	700	Cf. <i>RIC</i> 376, bust variant
480/2	Same obv. die as B.211d-e	701	Shield: troops
481	New obv. die?	702	Shield: troops
482	Same obv. die as B.235a-c (<i>FIDES MILITVM</i>); same dies as Ste-Pallaye hoard no. 2294 (now B. Sup.II, 244α)	724	I in r. field, not l.
483	New obv. die? Form of cuirass is as Issue 6	725	I in r. field, not l.
484	Bust dr. & cuir. from rear (corrects Bastien); same obv. die as B.243	727	I in r. field, not l.
486	Same dies as B.267c	740	I in l. field
490	Same obv. die as B.285a	763	Variant mark
494	/4 and /18 from same obverse die; note arrangement of 'wreath ties', Bastien 269a and c illustrates two further dies of this nature, unusual for Lyon	764	Cf. <i>RIC</i> 679 but caduceus
500	/24; obv. unpunctuated ? = B.299?	767	Radiate, cuir bust l., with <i>pugio</i> held in r. hand
501	Obv. punctuated: same die as B.300 and Ste-Pallaye no. 3017	768	Bust variant for <i>RIC</i> 609
503	Same rev. die as B.270b?	787	With aegis
504	/1: same dies as B.275b; /2: same obv. die as B.275b?	788	- S // XXI not in <i>RIC</i>
506	Same rev. die as B.301 and 311-12	799	Bust variety
516	Three from same obv. die	800	Obv. legend variant: in Aufbau
522	B reversed in r. field; same rev. die as B.400-1	807	Punctuated obv. legend: corrects B.455bis
525	C reversed in l. field	808	New obv. die?
527	C reversed in r. field	815	Reversed D in r. field
538	C reversed in l. field	868	Same dies as G.1477
539	C reversed in l. field	880	Reversed C in r. field
540	Same dies as B.408?	881	Engraver's error
542	Two from same obv. die	886	Reversed C in l. field
547	D reversed in r. field	892	Reversed C in l. field
550	Same rev. die as B.389a	900	Legend of issue 2/type of issue 3
551	(<i>RIC</i> : Siscia)	921	Bust variant for officina
552	(<i>RIC</i> : Siscia)	933	Obv. engraver's error and variant bust/legend combination
553	(<i>RIC</i> : Siscia)	946	Same obv. die as B.369d?
554	(<i>RIC</i> : Siscia)	954	Diocletian holds short sceptre
558	(<i>RIC</i> : Siscia)	955	Diocletian holds eagle-headed sceptre
559	(<i>RIC</i> : Siscia)	966	Mars r., not l.
560	<i>RIC</i> gives off Γ in error	975	Same dies as G.5944
561	(<i>RIC</i> : Siscia)	976	Same rev. die as G.6283
567	Bust variant of 243	985	Overstruck on Gallienus, Rome issue 6
570	Medusa head on shield	987	Overstruck on Tacitus, Lyon, B.121
574	Variant of 190	991	Rev. legend variant
590	Pellet in crescent	992	Rev. as <i>RIC</i> 413; obv. variant
594	Misprint in <i>RIC</i> : obv. 8 for 4	994	Rev. as <i>RIC</i> 412; obv. variant
605	Die flaw?	998	New rev. type for series
610	<i>RIC</i> gives off A: misprint?	1000	C 27 cites <i>RIC</i> 38 in error
		1002	Style is London
		1003	Same dies as specimen in Langtoft A hoard (<i>Treasure Annual Report</i> 2000, fig. 255, 7)
		1005	Same obv. die as Carson 2? C: triple portrait series, 7: same rev type but different die
		1007	Variant obv. legend for type

1008	Variant rev. legend	1040	Obv. legend new for Virtus type
1010	Galley with ram	1042	Victory on prow
1011	With ram; armed crew	1044	Bird on masthead
1012	No ram; obv. 20 mm die	1045	Animal head prow?
1013	No ram; armed crew	1046	Victory on prow
1016	VITRVS AVG	1048	Ram-headed prow?
1018	Variant mark	1049	Rev. proper to Valerian I: cast?
1021	Rowing boat, hide? Twin steering oars; crew armed	1050	Silvered
1022	Hide? Mast, twin steering oars; crew armed; no waves	1052	Silvered
1023	Hide? Mast, crew with shields	1053	Silvered
1024	Hide? Mast, twin steering oars; shields	1054	Silvered
1039	Unrecorded obv. legend?	1055	Silvered
		1056	Silvered
		1057	Same dies as E.1117: silvered

APPENDIX B: Q-RADIATES OF ALLECTUS

The following table provides the classification of 749 Q-radiates of Allectus, used as the basis of pp. 62–80 of this paper. Weights are given in grams, followed by the letter 'u' if the coin remains uncleaned, or by 'c' if the specimen is significantly affected by corrosion.

Cat.	NMW	Obv. type	Bust	Rev. type	Oars	Crew	Burnett	RIC	Weight (g)	Die links	Notes
ALLECTUS: Q-radiates											
London											
Obv. IMP C ALLECTVS P F AVG											
Rev. VIRTVS AVG; - - // QL											
1. Galley to left, no mast											
1009	*3003	B	B1	L-	7	4	108	55	2.82		waves, blobs
	*3004	C	B1	L-	5	4	108	55	2.71		
2. Galley to right, no mast; waves, blobs											
1010	*3005	C	B1	R-	6	5	110	55	2.63		galley with ram
	3006	D	B1	R-	6	4	110	55	2.65 c		with ram
1011	3007	D	B1	R-	8	5	110	55	2.68	=3008	with ram; armed crew
	3008	D	B1	R-	8	5	110	55	2.27	=3007	with ram; armed crew
1012	*3009	B	B1	R-	7	7	110	55	2.97		no ram; obv. 20 mm die
1013	*3010	B"	B1	R-	6	6	110	55	2.70		no ram; armed crew
3. Galley to left, with mast and ram											
1014	*3011	A	D1	(1?)	5	5	112	55	3.12	o3012	waves, blobs
	*3012	A	D1	1	9	5	112	55	2.56	o3011	later state of obv. die
	3013	A	D1	1	9	4	112	55	2.85 c	o3014	
	3014	A	D1	1	7	4	112	55	3.09	o3013	
	*3015	A	D1	1	6	6	112	55	3.07		
	*3016	A	D1	2	8	0	112	55	3.25		
	*3017	A	D1	2	7	0	112	55	2.96	r3049	
	*3018	A	D1	(3b)	5	4	112	55	3.43	o3019	
	3019	A	D1	(3b)	6	4	112	55	3.05	o3018	
	3020	A	D1	(3b)	5	4	112	55	3.10		
	3021	A	D1	(3b)	5	4	112	55	3.40		
	3022	A/C	D1	3b	6	5	112	55	3.35	=3023	
	*3023	A/C	D1	3b	6	5	112	55	2.70	=3022	
	3024	A	D1	3b	6	6	112	55	2.75		
	*3025	A/C	D1	3b	6	5	112	55	2.81		(beard)
	*3026	A	D1	3c	5	3	112	55	3.23	r3256	later state of die
	3027	B	D1	(1)	5	4	112	55	2.88	o3028-9	17 mm dies
	3028	B	D1	(1)	5	4	112	55	2.70	o3027,29	17 mm obv. die
	*3029	B	D1	(3b/c?)	6	4	112	55	3.18	o3027-8	17 mm obv. die; rev. decorated stem
	*3030	B	D1	2/3b?	5	0	112	55	3.15	o3031-2	rev. a version of 2?

Cat.	NW	Obv. type	Bust	Rev. type	Oars	Crew	Burnett	RIC	Weight (g)	Die links	Notes
	*3031	B	D1	3c	6	4 ^o	112	55	2.89	<i>a3030-12</i>	
	*3032	B	D1	3	6	4	112	55	2.97	<i>a3030-1</i>	3c var: doubled stays, four waves
	*3033	C'	D1	1	8	4	112	55	2.81		17 mm obv. die
	*3034	C'	D1	3c	5	6	112	55	3.17		17 mm obv. die
1015	*3035	A	D2	(1)	4	4	113	55	2.60	<i>=3036</i>	
	3036	A	D2	(1)	4	4	113	55	3.22 c	<i>=3035</i>	
	*3037	A	D2	1	8	0	113	55	3.32	<i>a3038.46</i>	
	3038	A	D2	1	7	0	113	55	2.49	<i>a3037.46</i>	
	3039	A	D2	1	8	0	113	55	3.02		
	*3040	A	D2	(3arc)	4	3	113	55	3.86		
	3041	A	D2	(2)	5	4	113	55	2.39 c		
	*3042	A	D2	(3a)	4	4	113	55	2.73		oars doubled
	3043	A	D2	7a	5	0	113	55	2.57		
	*3044	A	D2	3b	7	4	113	55	2.70		
	3045	A	D2	3b	5	5	113	55	3.02 u		
	3047	B	D2	2	6	5	113	55	2.89		
	3048	B"	D2	3c	6	5	113	55	2.63	<i>a3049</i>	
	*3049	B"	D2	2	7	0	113	55	3.58	<i>a3048: r 3017</i>	
	*3050	B"	D2	(u)	4	4 ^o	113	55	3.46		curved back prow: cf. 3123; 3125-6, 3262 [QV] error: VITRVS AVG
1016	*3046	A	D2	3b	4	4	113	55	3.13	<i>a3037-8</i>	
1017	*3051	A	B1	(1)	5	4	111	55	3.04	<i>a3066</i>	
	3052	A	B1	1	8	0	111	55	3.41 c		
	3053	A	B1	2	6	0	111	55	3.20		
	3054	A/C	B1	2	6	0	111	55	2.99		(beard)
	3055	A	B1	2	6	0	111	55	2.92		
	3056	A	B1	2	7	0	111	55	2.86	<i>a3062</i>	
	*3057	A	B1	2	6	0	111	55	2.75	<i>a3064</i>	
	3058	A	B1	3a	5	5	111	55	2.89		
	3059	A	B1	3a	6	4	111	55	2.46		
	3060	A	B1	3b	5	4 ^o	111	55	3.03		
	3061	A	B1	3b	5	6	111	55	2.93 u		
	*3062	A	B1	3b	6	5	111	55	2.67	<i>a3056</i>	
	3063	A	B1	3b	6	?	111	55	2.67 c		
	*3064	A	B1	3b	5	5	111	55	2.62	<i>a3057</i>	
	*3065	A	B1	3b	5	5	111	55	2.39		
	*3066	A	B1	(3c)	5	0	111	55	2.82	<i>a3051</i>	
	*3067	A	B1	3	5	3	111	55	2.75		rev 3c but plain stern
	*3068	B	B1	(3)	5	0	111	55	3.25		
	3069	B	B1	(1)	?	6 ^o	111	55	2.95 c		
	*3070	B	B1	(1)	7	4	111	55	2.99		
	3071	B	B1	(12)	5	4	111	55	2.84	<i>a3095</i>	
	3072	B	B1	(1)	4	?	111	55	2.82		
	3073	B	B1	1	8	4	111	55	3.98		
	3074	see after 3122									
	*3075	B	B1	1	5	0	111	55	3.31		20 mm obv die
	3076	B	B1	1	9	0	111	55	3.03		
	3077	B	B1	1	8	?	111	55	2.96 u		
	3078	B	B1	1	7	0	111	55	2.83		
	3079	B	B1	1	9	6	111	55	2.75		
	3080	B	B1	1	9	0	111	55	2.69		
	3081	B	B1	1	7	4 ^o	111	55	2.66 u		
	3082	B	B1	(2)	6	4	111	55	2.85		
	*3083	B/C	B1	2	8	4	111	55	4.48		(beard)
	3084	B	B1	2	6	0	111	55	3.77		
	*3085	B	B1	2	6	5	111	55	3.46	<i>=3086</i>	
	3086	B	B1	2	6	5	111	55	3.23	<i>=3085</i>	
	3087	B	B1	2	5	5	111	55	3.31		
	3088	B	B1	2	5	4	111	55	2.91		
	3089	B	B1	2	6	4	111	55	2.67		
	*3090	B	B1	2	7	4	111	55	2.60	<i>a3117</i>	

<i>Cat.</i>	<i>NMW</i>	<i>Obv type</i>	<i>Bust</i>	<i>Rev type</i>	<i>Oars</i>	<i>Crew</i>	<i>Burnett</i>	<i>RIC</i>	<i>Weight (g)</i>	<i>Die links</i>	<i>Notes</i>
	3091	B	B1	2	7	?	111	55	2.50 c		
	3092	B	B1	2	6	0	111	55	2.30		
	3093	B	B1	2	6	0	111	55	2.09		
	3094	B	B1	2	6	0	111	55	2.08		
	*3095	B	B1	(3a)	6	0	111	55	3.07	<i>o3071</i>	oars doubled
	*3096	B	B1	(3a)	6	4	111	55	2.79		but single waves
	3097	B	B1	3a	7	6	111	55	3.26		
	3098	B	B1	3a	8	4?	111	55	3.03		
	3099	B	B1	3a	7	4?	111	55	2.99		
	*3100	B	B1	3a	6	6	111	55	2.95		note beard at neck
	3101	B	B1	3a	6	0	111	55	2.81		
	3102	B	B1	3b	5	?	111	55	3.02		
	*3103	B	B1	3b	5	4	111	55	3.36	<i>o3107</i>	
	3104	B	B1	3b	5	4?	111	55	3.08		
	3105	B	B1	3b	5	7	111	55	3.03		oars doubled
	*3106	B	B1	3b	5	5	111	55	2.98		no waves
	*3107	B	B1	3b	5	0	111	55	2.92	<i>o3103</i>	
	3108	B	B1	3b	6	5	111	55	2.85		
	3109	B	B1	3b	5	6	111	55	2.79		
	3110	B'	B1	3b	5	6?	111	55	2.69		
	*3111	B	B1	(3c)	5	?	111	55	2.94		(3c), but single waves
	3112	B	B1	(3c)	7	0	111	55	2.91		(3a/b): stays doubled, single waves
	*3113	B	B1	(3c)	6	4	111	55	2.64	<i>r3243</i>	stays doubled; waves, blobs
	3114	B	B1	3c	5	6?	111	55	3.38	<i>r3118</i>	
	3115	B	B1	3c	5	4?	111	55	3.23		
	3116	B'	B1	3c	5	0	111	55	3.03		
	3117	B	B1	3c	7	4	111	55	2.86	<i>o3090</i>	oars doubled
	3118	B	B1	3c	5	6?	111	55	2.19	<i>r3114</i>	
	*3119	B	B1	3c	6	(3?)	111	55	2.69	<i>=3120</i>	oars doubled; no steering oar
	3120	B	B1	3c	6	3?	111	55	2.99 c	<i>=3119</i>	oars doubled; no steering oar
	*3121	B	B1	3	5	5	111	55	3.25		3c, but curved back prow
	3124	B	B1	3b	5	5	111	55	2.79		
	3121	B'	B1	3	5	4	111	55	2.25 u	<i>=3122;o3074</i>	stays tripled
	*3122	B'	B1	3	5	4	111	55	2.49	<i>=3121;o3074</i>	stays tripled
	3074	B'	B1	1	8	4	111	55	3.55 u	<i>o3121-2</i>	
	3128	B'	B1	3b	7	4?	111	55	4.07		
	*3125	B''	B1	(u)	4	4	111	55	2.89	<i>o3126</i>	curved back prow
	*3126	B''	B1	(u)	4	4	111	55	3.31	<i>o3125</i>	curved back prow
	3127	B''	B1	2	6	0	111	55	2.69		
	*3129	B''	B1	3a	7	4	111	55	2.79	<i>o3130-31</i>	crew forward of mast
	3130	B''	B1	3a	6	3	111	55	2.87	<i>o3129,31</i>	crew forward of mast
	3131	B''	B1	3a	6	4?	111	55	3.06	<i>o3129-30</i>	
	3132	B''	B1	3b	5	5	111	55	2.81		
	*3133	B''	B1	3b	5	4	111	55	3.31	<i>r3158</i>	
	*3134	B'?	B1	2	7	0	111	55	2.96 u		decorated cuirass; rev. furled sails?
	3135	B'?	B1	3a/b?	8	4	111	55	3.13 u		
	*3136	C	B1	1	7	0	111	55	3.19	<i>=3137</i>	hair sideways; oars doubled
	3137	C	B1	1	7	0	111	55	2.76	<i>=3136</i>	hair sideways; oars doubled
	3138	C	B1	1	8	0	111	55	2.40		oars doubled
	3139	C	B1	1	8	0	111	55	3.16		oars doubled
	3140	C	B1	1	7	0	111	55	3.48		
	3141	C	B1	1	7	0	111	55	2.76	<i>=3142</i>	oars doubled
	3142	C	B1	1	7	0	111	55	2.67 c	<i>=3141</i>	oars doubled
	3143	C	B1	1	7	0	111	55	2.84 c		oars doubled
	*3144	C	B1	2	6	0	111	55	3.77		furled sails?
	3145	C	B1	2	7	0	111	55	3.58		
	3146	C	B1	2	6	0	111	55	3.54 c		
	3147	C	B1	2	6	0	111	55	3.43	<i>=3154</i>	
	3148	C	B1	2	7	0	111	55	3.25		
	*3149	C	B1	2	7	0	111	55	3.23		
	3150	C	B1	2	5	0	111	55	3.14		

<i>Cat.</i>	<i>NMW</i>	<i>Obv type</i>	<i>Bust</i>	<i>Rev type</i>	<i>Oars</i>	<i>Crew</i>	<i>Burnett</i>	<i>RIC</i>	<i>Weight (g)</i>	<i>Die links</i>	<i>Notes</i>
3151	C	B1	2		6	?	111	55	3.10 c		
3152	C	B1	2		6	0	111	55	3.08		
3154	C	B1	2		6	0	111	55	2.95	=3147	
3155	C	B1	2		8	4	111	55	2.43		crew armed
3156	C	B1	2		6	0	111	55	2.36		
3153	C	B1	3b		6	6	111	55	3.00		
3157	C	B1	3b		5	5	111	55	3.25		
*3158	C	B1	3b		5	4	111	55	3.02	o3167:r3133	
3159	C	B1	3b		5	4	111	55	2.74		
3160	C	B1	3b		5	0	111	55	2.74		
3161	C	B1	3b		5	?	111	55	2.74 c	=3165	
3162	C	B1	3b		5	4	111	55	2.67		
3163	C	B1	3b		6	4	111	55	2.62		
3164	C	B1	3b		5	4	111	55	2.56 c		
3165	C	B1	3b		5	?	111	55	2.46 c	=3161	
3166	C	B1	3b		5	4	111	55	2.36		
*3167	C	B1	3c		5	4	111	55	3.63	o3158	
*3168	C	B1	3c		5	5	111	55	3.23	=3169	
3169	C	B1	3c		5	5	111	55	2.87	=3168	
*3170	C	B1	3		4	0	111	55	2.93	=3171:r3259	sketchy lettering, rev.
3171	C	B1	3		4	0	111	55	2.75	=3170:r3259	sketchy lettering, rev.
3172	C	B1	3		5	6	111	55	2.79		
*3173	C	B1	(u)		7	3	111	55	3.62		galley similar to L- but with mast: waves, blobs
*3174	C	B1	1		8	6	111	55	2.43		
3175	C	B1	2		6	6	111	55	3.26	=3176	
3176	C	B1	2		6	6	111	55	2.51	=3175	
3177	C	B1	2		6	4	111	55	2.99	o3185	17 mm obv die
3178	C	B1	2		6	6	111	55	2.88	o3179	
3179	C	B1	3b		6	4	111	55	3.65	o3178	
3180	C	B1	3b		4	5	111	55	3.31	=3181	
3181	C	B1	3b		4	?	111	55	2.79 c	=3180	
3182	C	B1	3b/c		4	0	111	55	2.83		17 mm obv die
3183	C	B1	3c		6	5	111	55	3.40	=3184	17 mm obv die
*3184	C	B1	3c		6	5	111	55	2.80	=3183	17 mm obv die
3185	C	B1	3c		6	4	111	55	2.72	o3177	17 mm obv die
3186	C	B1	3c		4	5?	111	55	2.69		
3187	C	B1	3c		5	4	111	55	2.54		17 mm obv die
3188	see before 3218										
3189	D	B1	(1)		5	?	111	55	2.80 c	o3229	oars doubled
3190	see before 3230										
3191	D	B1	1		9	5	111	55	2.92 c	=3192;o3211,20	
*3192	D	B1	1		9	5	111	55	2.34	=3191;o3211,20	
3193	D	B1	1		9	0	111	55	3.04		
3194	D	B1	1		9	6	111	55	2.30		
3195	D	B1	1		9	4	111	55	2.87		
3196	D	B1	1		9	0	111	55	2.49		
3197	D	B1	1		8	4	111	55	3.25	=3198	crew armed
*3198	D	B1	1		8	4	111	55	2.83	=3197	crew armed
3199	D	B1	1		8	0	111	55	3.54	=3200-1	
3200	D	B1	1		8	0	111	55	3.34	=3199,3201	
3201	D	B1	1		8	0	111	55	2.94	=3199,3200	
3202	D	B1	1		8	4	111	55	2.91		
3203	D	B1	1		8	0	111	55	3.17		
3204	D	B1	1		8	0	111	55	2.33		
3205	D	B1	1		7	0	111	55	4.05	=3206	
3206	D	B1	1		7	0	111	55	3.67	=3205	
3207	D	B1	1		7	4	111	55	3.08 c		crew armed
*3208	D	B1	1		7	4	111	55	2.83		crew armed
3209	D	B1	1		6	6	111	55	2.64		
3210	D	B1	2		8	4	111	55	3.01		
3211	D	B1	2		7	4	111	55	3.15	o3191-2;3220	
3212	D	B1	2		7	4	111	55	2.72		

<i>Cat.</i>	<i>NMW</i>	<i>Obv type</i>	<i>Bust</i>	<i>Rev type</i>	<i>Oars</i>	<i>Crew</i>	<i>Burnett</i>	<i>RIC</i>	<i>Weight (g)</i>	<i>Die links</i>	<i>Notes</i>
	*3213	D	B1	2	7	0	111	55	2.82	<i>o3249-50,3260</i>	
	*3214	D	B1	2	6	4	111	55	3.46		no waves
	3215	D	B1	2	6	0	111	55	3.22		
	3216	D	B1	2	6	4	111	55	2.92		
	*3217	D	B1	2	6	4	111	55	2.88		
	3188	D	B1	(3a?)	5	4	111	55	2.82 c		oars doubled
	3218	D	B1	3a	7	6	111	55	2.76	<i>o3219</i>	
	3219	D	B1	3a	7	0?	111	55	2.50 c	<i>o3218</i>	
	3220	D	B1	3a	7	0	111	55	2.42	<i>o3191-2:3211</i>	
	3221	see after 3242									
	3222	D	B1	3a	6	6	111	55	3.12		
	*3223	D	B1	3a	6	4	111	55	2.91	=3224	
	3224	D	B1	3a	6	4	111	55	2.73	=3223	
	3225	D	B1	3a	6	6	111	55	2.80 c		
	3226	D	B1	3a	5	6	111	55	3.12		
	3227	D	B1	3a	5	5	111	55	2.83		
	*3252	D	B1	3a	6	5	111	55	2.83		decorated cuirass
	*3228	D	B1	(3?)	6	4	111	55	3.21		no waves
	*3229	D	B1	(3b?)	4	4	111	55	3.16	<i>o3189</i>	no waves
	3190	D	B1	(3b)	5	?	111	55	2.32 c		oars doubled
	3230	D	B1	3b	6	5	111	55	3.36		
	3231	D	B1	3b	6	?	111	55	2.97 c		
	3232	D	B1	3b	6	4	111	55	2.96 c		
	3233	D	B1	3b	6	6	111	55	2.87		
	3234	D	B1	3b	5	5?	111	55	2.80		
	3235	D	B1	3b	6	1?	111	55	2.64		
	3236	D	B1	3b	5	5	111	55	3.44		
	3237	D	B1	3b	5	5	111	55	3.39		
	3238	D	B1	3b	5	4	111	55	2.78 u		
	3239	D	B1	3b	5	4	111	55	2.65		
	3240	D	B1	3b	5	?	111	55	2.68		
	3241	D	B1	3b	5	5	111	55	2.62		
	3242	D	B1	3b	5	0?	111	55	2.53		
	3221	D	B1	3b/c	6	5	111	55	3.22		
	*3243	D	B1	(3)	6	4	111	55	2.89	<i>r3113</i>	waves, blobs
	3244	D	B1	(3)	4	4	111	55	3.39	=3245	
	*3245	D	B1	(3)	4	4	111	55	2.78	=3244	
	*3246	D	B1	(1/3c?)	4	4	111	55	3.23		
	3247	D	B1	(3c)	5	4	111	55	2.64		
	*3248	D	B1	(3c)	5	5	111	55	2.62		
	*3249	D	B1	3c	5	5	111	55	3.85	=3250; <i>o3213,3260</i>	
	3250	D	B1	3c	5	5	111	55	3.11 u	=3249; <i>o3213,3260</i>	
	3251	D	B1	3c	6	4	111	55	2.91		no steering oar
	3252	see after 3227									
	3253	D	B1	3c	6	3	111	55	2.47		
	3254	D	B1	3c	6	4	111	55	2.44		
	3255	D	B1	3c	5	6	111	55	3.12		
	3256	D	B1	3c	5	4	111	55	3.06	<i>r3026</i>	
	3257	D	B1	3c	5	4	111	55	2.46		
	3258	D	B1	3c	5	4	111	55	2.74		
	3259	D	B1	3	4	0	111	55	3.32	<i>r3170-71</i>	
	*3260	D	B1	3	4	5	111	55	3.12	<i>o3249-50,3213</i>	
	3261	D	B1	3	4	?	111	55	2.63 u		
1018	*3262	D	B1	(u)	4	5	—	—	3.19		variant with mark // QV : no waves

4. Galley to right, with mast and ram

1019	*3263	A	D1	R	6	6	—	55	2.59		
1020	3264	B	B1	R	7	7	—	55	2.88		
	*3265	B	B1	R	7	6	—	55	2.94		
	*3266	B	B1	R	7	6	—	55	2.85	=3267	

<i>Cat.</i>	<i>NMW</i>	<i>Obv type</i>	<i>Boat</i>	<i>Rev type</i>	<i>Oars</i>	<i>Crew</i>	<i>Burnett</i>	<i>RIC</i>	<i>Weight (g)</i>	<i>Die links</i>	<i>Notes</i>
	3267	B	B1	R	7	6	—	55	2.57 c	=3266	
	3268	B	B1	R	7	6	—	55	2.66		
	3269	B ⁺	B1	R	6	5	—	55	3.45 c	=3270	
	*3270	B ⁺	B1	R	6	5	—	55	3.05	=3269	
	3271	B ⁺	B1	R	8	6 ⁺	—	55	3.11		
	3272	B ⁺	B1	R	7	5	—	55	3.70		waves, blobs
	*3273	B ⁺	B1	R	5	5	—	55	3.16		
	*3274	C	B1	R	7	7	—	55	3.12		
	3275	C	B1	R	7	6	—	55	3.87		waves, blobs
	3276	C	B1	R	7	6 ⁺	—	55	2.69		waves, blobs
	*3277	C	B1	R	7	6	—	55	2.50	<i>o</i> 3278-79	
	*3278	C	B1	R	6	5	—	55	2.62	<i>o</i> 3277,79	
	3279	C	B1	R	6	?	—	55	2.50 c	<i>o</i> 3277-78	
	3280	C	B1	R	6	6	—	55	3.89		
	*3281	C	B1	R	6	5	—	55	3.08		
	3282	C	B1	R	6	6	—	55	2.50		
	3283	C	B1	R	5	0	—	55	2.78		
	3284	C ⁺	B1	R	7	5	—	55	2.94		
	3285	D	B1	R	7	4 ⁺	—	55	3.11		
	3286	D	B1	R	7	5	—	55	3.66	<i>o</i> 3287	
	3287	D	B1	R	6	5	—	55	3.16	<i>o</i> 3286	
	3288	D	B1	R	6	?	—	55	2.52 c		
	3289	D	B1	R	6	6	—	55	2.76 c		
5a. Boat to left, no mast											
1021	*3290	C	B1	L ⁺	5	5	(108)	55	3.55		rowing boat, hide?, twin steering oars, crew armed
5b. Boat to left, mast											
1022	*3291	D ⁺	B1	L ⁺	5	6	(111)	55	3.54		hide?, twin steering oars; crew armed; no waves
1023	*3292	D	B1	L ⁺	5	5	(111)	55	2.91		hide?, crew with shields
1024	*3293	D	B1	L ⁺	5	5	(111)	55	2.76 c		hide?, twin steering oars; shields
6. Light craft to right, with mast											
1025	*3294	B ⁺	B1	R ⁺	6	5	—	55	2.89		
C Mint											
Rev. LAETITIA AVG; -- // QC											
1a. Galley to left, no cabin; waves											
<i>Obv.</i> IMP C ALLECTVS P F I AVG; B1											
1026	*3295	α		L	6	0	—	—	3.14	<i>r</i> 3296	oars doubled; high-shouldered bust
<i>Obv.</i> IMP C ALLECTVS P F AVG; B1											
1027	*3296	α		L	6	0	214	124	3.10	<i>r</i> 3295	oars doubled
	*3297	β		L	5	4 ⁺	214	124	3.07 c	=3298	oars doubled; beard on neck
	3298	β		L	5	4 ⁺	214	124	2.78 c	=3297	oars doubled; beard on neck
	*3299	ε		L	5	0	214	124	3.16	=3300; <i>o</i> 3331	oars doubled; 'vest'
	*3300	ε		L	5	0	214	124	3.04	=3299; <i>o</i> 3331	oars doubled; 'vest'
<i>Obv.</i> IMP C ALLECTVS P AVG; B1											
1028	*3301	β		L	4 ⁺	0	—	125	3.10	<i>o</i> 3341	oars doubled; no pteriges
	*3302	δ		L	5	4	—	125	3.04		oars doubled; tall thin head
1b. Galley to right, no cabin; waves											
<i>Obv.</i> IMP C ALLECTVS P I FE AVG; B1											
1029	*3303	ε		2a	4	4	—	127	3.31	<i>o</i> 3304	oars doubled; earlier state of obv.
	*3304	ε		2a	4	4	—	127	3.33	<i>o</i> 3303	oars doubled; later state of obv.

<i>Cat.</i>	<i>NMW</i>	<i>Obv type</i>	<i>Rev type</i>	<i>Oars</i>	<i>Crew</i>	<i>Burnett</i>	<i>RIC</i>	<i>Weight (g)</i>	<i>Die links</i>	<i>Notes</i>
<i>Obv. IMP C ALLECTVS P F I AVG; B I</i>										
1030	*3305	β	3	5	4	212	-	3.01	<i>o3306</i>	no pieriges
	*3306	β	3	4	4	212	-	3.07	<i>o3305</i>	no pieriges
	*3307	γ	2a	4	4	212	-	2.73	<i>o3308</i>	oars doubled; added rivets, obv
	3308	γ	4a	5	6	212	-	2.99	<i>o3307</i>	oars doubled; later state of obv.
	*3309	γ	2a	4	4?	212	-	2.97	<i>r3330</i>	added rivets, obv
<i>Obv. IMP C ALLECTVS P F I AVG; B I</i>										
1031	*3310	α	1b	7	4	210	124	2.99		
	*3311	α	2b	5	4	210	124	2.93		
	3312	α	4a	8	6	210	124	3.31		
	*3313	α	5a	5?	4	210	124	3.14	=3314; <i>r3317</i>	
	3314	α	5a	5?	4	210	124	3.00	=3313; <i>r3317</i>	
	*3315	β	1b	7	4	210	124	2.79 c	<i>o3356</i>	obv link to group 2; earlier state
	3316	β	3	4	0	210	124	2.89		
	3317	β	5a	5?	4	210	124	3.06	<i>r3313-14</i>	
	3318	γ	1b	7	4	210	124	3.18		
	*3319	γ	1b	8	4	210	124	2.76		
	3320	γ	2a	4	4	210	124	2.98	=3321	oars doubled
	*3321	γ	2a	4	4	210	124	3.02	=3320	oars doubled
	3322	γ	2a	4	5	210	124	3.27		oars doubled
	*3323	γ	5d	7	4	210	124	3.07		
	3324	δ	2a	4	4	210	124	3.01		oars doubled
	*3325	δ	4b	7	6	210	124	3.08	<i>o3326</i>	
	3326	δ	4b	7	5	210	124	3.16	<i>o3325</i>	
	*3327	ε	2b	5	4	210	124	3.67		
	3328	ε	4a	7	4	210	124	3.14	<i>o3329</i>	
	*3329	ε	4a	4	7	210	124	3.12	<i>o3328</i>	oars doubled
	*3330	ε	2a	5	4	210	124	3.48	<i>r3309</i>	oars doubled
	3331	ε	1a	?	4?	210	124	4.15 c	<i>o3299-3300</i>	
	3332	ε	1b	8	4	210	124	3.19		
	3333	ε	2b	5	4	210	124	3.44	<i>o3334</i>	
	3334	ε	5b	5	4	210	124	2.85	<i>o3333; r3336</i>	
<i>Obv. IMP C ALLECTVS P F I AVG; B I</i>										
1032	*3335	α	1a	6	4	211	125	3.01	<i>r3337</i>	
	*3336	α	5b	5	4	211	125	2.76	<i>r3334</i>	
	3337	β	1a	6	4	211	125	3.04	<i>r3335</i>	
	3338	β	3	4	4	211	125	3.23		oars doubled
	3339	β	2b	?	4	211	125	2.73		
	3340	β	3	4	4	211	125	2.42		
	3341	β	4a	8	4	211	125	2.79	<i>o3301</i>	
	3342	γ	2b	5	4	211	125	3.12		
	*3343	γ	3	4	4	211	125	3.46		
	3344	δ	3	4	4	211	125	3.34		
	3345	ε	3	4	4	211	125	2.73		
	3346	ε	3	4	4	211	125	3.03	<i>o3347</i>	oars doubled
	*3347	ε	5c	5	4	211	125	3.21	<i>o3346</i>	
	*3348	ε	5e	7	5	211	125	3.07		square head
	3349	ε	4b	6	6?	211	125	2.96		
	*3350	ε	5f	4	5	211	125	3.03	=3403	oars doubled
	3403	ε	5f	4	5	211	125	3.16 u	=3350	oars doubled
2. Galley to right, no cabin; no waves										
<i>Obv. IMP C ALLECTVS P F I AVG; B I</i>										
1034	3351	α	4	4	4	210	124	3.34		oars doubled
	3352	α	3	5	7	210	124	3.33		
	3353	α	1	8	4	210	124	2.81		
	*3354	β	2a	7	4	210	124	2.96		
	3355	β	2a	6	5	210	124	2.83		
	*3356	β	5	6	4	210	124	3.13	<i>o3315</i>	obv link to group 1b; later state

Cut	NMW	Obs type	Rev type	Oars	Crew	Burnett	RIC	Weight (g)	Die links	Notes
	3357	β	5	8	4	210	124	3.14		
	3358	γ	3	4	5	210	124	2.76	<i>o3359-60</i>	
	3359	γ	3	5	4	210	124	2.58	<i>o3358.60</i>	
	3360	γ	5	7	4	210	124	2.93	<i>o3358-59</i>	
	3361	γ	3	6	4	210	124	3.14	<i>=3362; o3363-65</i>	
	3362	γ	3	6	4	210	124	2.65	<i>=3361; o3363-65</i>	
	*3363	γ	3	6	4	210	124	3.53	<i>o3361-62; 3364-65</i>	
	3364	γ	5	7	4	210	124	3.13	<i>=3365; o3361-63</i>	six oars doubled
	*3365	γ	5	7	4	210	124	3.10	<i>=3364; o3361-63</i>	six oars doubled
	3366	ε	2a	7	4	210	124	2.86 u	<i>=3367</i>	
	3367	ε	2a	7	4	210	124	3.24	<i>=3366</i>	
	3368	ε	5	8	6	210	124	2.98		some oars doubled
<i>Obs. IMP C ALLECTVS P AVG: BI</i>										
1035	*3369	α	2b	6	4	211	125	3.04	<i>o3370; r3378</i>	crew armed?
	3370	α	2b	5	4	211	125	2.62	<i>o3369</i>	
	3371	α	2b	6	4	211	125	2.84		
	3372	α	1	6	4	211	125	3.01	<i>=3373</i>	
	3373	α	1	6	4	211	125	3.09	<i>=3372</i>	
	3374	α	5	8	5	211	125	3.22		
	*3375	α	6a	4?	4	211	125	3.09	<i>o3376</i>	
	*3376	α	6b	5	6?	211	125	2.85	<i>o3375; r3401</i>	
	*3377	β	4	4	5	211	125	3.42		
	*3378	β	2b	6	4	211	125	2.91	<i>r3369</i>	crew armed?
	3379	β	5	7	5	211	125	3.00		
	3380	γ	4	4	4	211	125	3.02	<i>=3381; o3382</i>	
	*3381	γ	4	4	4	211	125	3.20	<i>=3380; o3382</i>	
	*3382	γ	4	4	4	211	125	3.69	<i>o3380-81</i>	
	3383	γ	4	4	4	211	125	3.40	<i>r3390-1</i>	
	3384	γ	4	4	4	211	125	2.74	<i>o3385</i>	
	3385	γ	4	4	4	211	125	2.79	<i>o3384</i>	
	3386	γ	2a	4	4	211	125	3.08		oars doubled
	3387	γ	5	7	4	211	125	2.72		
	*3388	γ	6c	6	4	211	125	3.35		
	3389	δ	5	7	5	211	125	3.43		
	3390	ε	4	4	4	211	125	2.93	<i>=3391; r3383</i>	
	*3391	ε	4	4	4	211	125	2.89	<i>=3390; r3383</i>	
	3392	ε	4	4	4	211	125	2.80		
	3393	ε	4	4	4	211	125	2.97		
	3394	ε	4	4	6	211	125	3.07		
	3395	ε	3	5	4	211	125	2.86		
	3396	ε	1	8	?	211	125	3.35 c		oars doubled
	3397	ε	1	7	6	211	125	3.14		oars doubled
	3398	ε	1	7	7	211	125	2.85	<i>o3399</i>	oars doubled
	3399	ε	1	6	6	211	125	3.30	<i>o3398</i>	oars doubled
	3400	ε	5	6	4	211	125	2.92		oars doubled
	3401	ε	6b	5	6?	211	125	3.00	<i>r3376</i>	
	*3402	ε	6d	4	4	211	125	3.32		oars doubled
	3403	see after 3350								
<i>Obs. IMP C ALLECTVS AVG: BI</i>										
1036	3404	α	3	4	4	-	126	2.88 u	<i>o3405</i>	
	3405	α	3	6	6	-	126	3.71 u	<i>o3404</i>	
	*3406	α	1	7	7	-	126	2.73		oars doubled
	*3407	α	5	6	4	-	126	3.28		
	3408	β	2a	6	?	-	126	2.88	<i>o3409-11</i>	
	*3409	β	2a	4	0	-	126	2.91	<i>o3408, 10-11</i>	
	*3410	β	2a	6	4	-	126	3.05	<i>o3408-9, 11</i>	
	*3411	β	2a	7	4	-	126	2.64	<i>o3408-10</i>	
	*3412	β	1	7	6	-	126	2.94		oars doubled
	3413	β	1	7	6	-	126	3.45	<i>=3414</i>	oars doubled
	3414	β	1	7	6	-	126	2.74 u	<i>=3413</i>	oars doubled
	3415	β	1	6	6	-	126	3.18		oars doubled

<i>Cat.</i>	<i>NMW</i>	<i>Obv type</i>	<i>Rev type</i>	<i>Oars</i>	<i>Crew</i>	<i>Burnett</i>	<i>RIC</i>	<i>Weight (g)</i>	<i>Die links</i>	<i>Notes</i>
	3416	γ	4	4	4	–	126	2.94		
	3417	γ	2a	5	4	–	126	3.14 u		
	3418	γ	5	6	4	–	126	3.32		
	*3419	δ	2a	6	4	–	126	3.06		
	*3420	δ	5	7	4	–	126	2.51		
	3421	ε	5	7?	4	–	126	2.61 c		
	<i>Obv. IMP ALLECTVS P AVG; B1</i>									
1037	*3422	γ	6e	4	7	–	–	2.60		obv. added rivets; no 'vest'
	3. Galley to right, with cabin; no waves									
	<i>Obv. IMP C ALLECTVS AVG; B1</i>									
1038	*3423	δ	7	7	6	–	–	3.20		rev is Virtus type 1, but to right
	<i>Rev. VIRTVS AVG; --//QC</i>									
	Galley to left, with cabin; no waves									
	<i>Obv. IMP C ALLECTVS P FEL AVG; B1</i>									
1039	3424	δ	6	6	6	–	–	3.21	=3425	unrecorded obv legend?
	*3425	δ	6	6	6	–	–	2.97	=3424	unrecorded obv legend?
	<i>Obv. IMP C ALLECTVS P F I AVG; B1</i>									
1040	*3426	α	1	7	5	–	–	3.24		obv. legend new for Virtus type
	*3427	ε	8c	5	4	–	–	3.02		obv. legend new for Virtus type
	<i>Obv. IMP C ALLECTVS P F AVG; B1</i>									
1041	*3428	α	1	9	7	215	128	2.99	<i>o3476</i>	
	3429	α	1	7	7	215	128	2.60 c	<i>r3432</i>	
	*3430	β	1	9	5	215	128	2.80	<i>o3455</i>	
	*3431	β	1	7	5?	215	128	2.67	<i>o3507,3578</i>	
	3432	δ	1	7	5	215	128	3.12	<i>r3429</i>	
	3433	δ	1	8	4	215	128	3.08		
	3434	δ	1	9	3	215	128	2.76		
	*3435	α	2	6	5	215	128	2.89	<i>r3441</i>	
	3436	β	2	8	6?	215	128	2.78		
	3437	β	2	7	5	215	128	3.06		no steering oar
	3438	β	2	6	4	215	128	2.98 c		
	3439	γ	2	6	6	215	128	3.52		
	3440	δ	2	7	5	215	128	2.78 u		
	3441	δ	2	7	5	215	128	3.14	<i>r3435</i>	
	*3442	ε	2	7	5	215	128	3.00	<i>r3637</i>	
	*3443	ε	2	7	4	215	128	3.00	<i>o3444-48,3614; r3640</i>	no steering oar; earliest state of obv.
	3444	ε	2	6	4	215	128	2.85 u	=3445-46; <i>o3443,47-48,3614</i>	
	3445	ε	2	6	4	215	128	2.90	=3444,46; <i>o3443,47-48,3614</i>	
	*3446	ε	2	6	4	215	128	2.57	=3444-45; <i>o3443,47-48,3614.</i>	latest state of obv
	*3447	ε	2	6	3	215	128	3.27	<i>o3443-46,48,3614; r3654-6</i>	
	3448	ε	2	6	?	215	128	2.51 c	<i>o3443-47,3614</i>	
	*3449	ε	2	6	4	215	128	3.12	<i>o3612-13</i>	
	*3450	δ	2'	6	4	215	128	3.27	=3451	prows varies
	3451	δ	2'	6	4	215	128	2.91	=3450	prows varies
	*3452	α	3	6	7	215	128	3.22	<i>o3501</i>	
	3453	α	3	7	7	215	128	2.96	=3454	
	3454	α	3	7	7	215	128	2.75 u	=3453	
	3455	β	3	5	6	215	128	3.27	<i>o3430</i>	
	*3456	β	3	5	5	215	128	2.91		
	3457	β	3	5	5?	215	128	3.04		
	3458	γ	3	5	6	215	128	2.74	=3459; <i>o3567</i>	

Cat	NMW	Obs type	Rev type	Oars	Crew	Burnett	RIC	Weight (g)	Die links	Notes
	3459	γ	3	5	6	215	128	3.03	≈3458; o3567	
	3460	γ	3	5	6 ³	215	128	3.03		rev. d/s
	*3461	δ	3	5	6	215	128	3.07		
	3462	δ	3	5	6	215	128	3.13	o3463	
	3463	δ	3	5	6	215	128	2.76	o3462	
	3464	δ	3	5	6	215	128	3.05		
	3465	δ	3	5?	5	215	128	2.55 c		
	3466	δ	3	5	6	215	128	2.73		
	3467	δ	3	5	6	215	128	2.87	o3468	
	*3468	δ	3	5	6	215	128	3.14	o3467	
	3469	δ	3	5	6	215	128	3.39		
	*3470	δ	3	5	6?	215	128	3.19		
	3471	δ	3	5	8?	215	128	2.69		
	3472	ε	3	6	7	215	128	2.88		
	*3473	ε	3	5	6	215	128	3.18		
	3474	ε	3	5	7	215	128	3.01		
	3475	ε	3	5	7	215	128	2.87		
	*3476	α	3 ^{iv}	6	6	215	128	3.15	o3428	
	3477	α	4	5	6	215	128	2.60 u	o3478	
	3478	α	4	5	6	215	128	2.61	o3477	
	3479	β	4	5	6	215	128	2.87		
	3480	β	4	5	6	215	128	2.65	r3486	
	3481	β	4	5	5	215	128	3.20		
	3482	β	4	5	6	215	128	3.05	o3483-84	
	3483	β	4	5	6	215	128	3.63	≈3484; o3482; r3485	
	*3484	β	4	5	6	215	128	3.26	≈3483; o3482; r3485	
	*3485	β	4	5	6	215	128	2.80	o3528, 3555ff., r3483-84	
	3486	β	4	5	6	215	128	3.51	r3480	
	*3487	γ	4	5	6	215	128	2.95	r3675	
	3488	γ	4	5	6	215	128	2.99 u		
	3489	γ	4	5	6	215	128	3.03 u	≈3490	
	3490	γ	4	5	6	215	128	2.77	≈3489	
	3491	γ	4	5	6	215	128	2.94	o3572	
	3492	γ	4	5	6	215	128	2.72 c		
	3493	γ	4	5	6	215	128	3.04		
	3494	γ	4	5	6	215	128	3.08		
	3495	δ	4	5	6	215	128	2.70 u		
	3496	δ	4	5	6	215	128	2.74 u		
	*3497	ε	4	5	6	215	128	3.03	≈3498	
	3498	ε	4	5	6	215	128	2.70	≈3497	
	3499	ε	4	5	6	215	128	3.14	o3500	
	*3500	ε	4	5	6	215	128	2.84	o3499	
	*3501	α	5	5	7	215	128	2.81	o3452	
	3502	β	5	5	6	215	128	2.99 u	r3514	
	3503	β	5	5	5?	215	128	2.73 c		
	3504	β	5	5	6	215	128	2.95	o3505, 3577	
	*3505	β	5	5	6	215	128	2.99	o3504, 3577	
	3506	β	5	5	6	215	128	3.04		
	3507	β	5	5	6	215	128	2.92	o3431, 3578	
	3508	β	5	5	6	215	128	3.05		
	*3509	β	5	5	6	215	128	2.81		
	3510	γ	5	5	?	215	128	3.34 u		
	3511	γ	5	5	6	215	128	3.23		
	3512	γ	5	5	6	215	128	2.91	≈3513; o3514-15	
	*3513	γ	5	5	6	215	128	3.10	≈3512, o3514-15	
	*3514	γ	5	5	6	215	128	2.69	o3512, 13, 15, r3502	
	*3515	γ	5	5	6	215	128	3.19	o3512-14	
	*3516	δ	5	5	8	215	128	2.96	o3517	
	3517	δ	5	5	6	215	128	2.46 c	o3516	
	*3518	δ	5	5	7	215	128	3.04	r3680	
	3519	ε	5	7	0?	215	128	2.80 c		
	3520	ε	5	5	6	215	128	2.61 c	r3684-85	

Cat.	NMW	Obv type	Rev type	Ours	Crew	Burnett	RIC	Weight (g)	Die links	Notes
	*3521	α	6	5	6	215	128	2.97	<i>o3522; r3534ff</i>	
	*3522	α	6	5	6	215	128	3.28	<i>o3521; r3523-24</i>	
	3523	α	6	5	6	215	128	2.90 u	<i>=3524; r3522</i>	
	*3524	α	6	5	6	215	128	2.93	<i>=3523; r3522</i>	
	*3525	β	6	5	6	215	128	2.91	<i>r3526</i>	
	3526	β	6	5	6	215	128	3.04	<i>r3525</i>	
	*3527	β	6	7	6	215	128	2.86		
	*3528	β	6	6	6	215	128	3.11	<i>o3485,3555ff; r3545</i>	
	3529	β	6	6	6	215	128	2.60 c	<i>=3530</i>	
	3530	β	6	6	6	215	128	2.73 u	<i>=3529</i>	
	3531	γ	6	6	6	215	128	3.07 u	<i>=3532</i>	
	3532	γ	6	6	6	215	128	2.77	<i>=3531</i>	
	3533	γ	6	6	5	215	128	2.68		
	3534	δ	6	5	6	215	128	3.92	<i>=3535-44; r3521</i>	no wreath ties; eleven d/ds
	3535	δ	6	5	6	215	128	3.34	<i>etc</i>	no wreath ties; eleven d/ds
	*3536	δ	6	5	6	215	128	3.17		no wreath ties; eleven d/ds
	3537	δ	6	5	6	215	128	3.15		no wreath ties; eleven d/ds
	3538	δ	6	5	6	215	128	3.14		no wreath ties; eleven d/ds
	3539	δ	6	5	6	215	128	2.99		no wreath ties; eleven d/ds
	3540	δ	6	5	6	215	128	2.92		no wreath ties; eleven d/ds
	3541	δ	6	5	6	215	128	2.86		no wreath ties; eleven d/ds
	3542	δ	6	5	6	215	128	2.80		no wreath ties; eleven d/ds
	3543	δ	6	5	6	215	128	2.69 u		no wreath ties; eleven d/ds
	3544	δ	6	5	6	215	128	2.66 u		no wreath ties; eleven d/ds
	3545	see after 3700								
	*3546	ε	6	5	6	215	128	2.97	<i>=3547; o3548</i>	
	3547	ε	6	5	6	215	128	3.12	<i>=3546; o3548</i>	
	*3548	ε	6	6	5	215	128	2.83	<i>o3546-47</i>	
	3549	ε	6	6	7	215	128	3.01		
	3550	β	7	6	7	215	128	3.08 u	<i>=3551; o3552-53</i>	
	3551	β	7	6	7	215	128	2.79 c	<i>=3550; o3552-53</i>	
	3552	β	7	6	4	215	128	2.86	<i>o3550-1,53</i>	
	3553	β	7	5	7	215	128	2.98	<i>o3550-52</i>	
	3554	β	7	5	7	215	128	3.26		
	*3555	β	7	6	7	215	128	3.50	<i>=3556;</i> <i>o3485,3528,3557-9</i>	
	3556	β	7	6	7	215	128	2.90	<i>=3555;</i> <i>o3485,3528,3557-9</i>	
	3557	β	7	7	6	215	128	3.14	<i>=3558;</i> <i>o3485,3528,3555-9</i>	
	*3558	β	7	7	6	215	128	3.15	<i>=3557;</i> <i>o3485,3528,3555-9</i>	later state of rev. die
	*3559	β	7	6	4	215	128	3.16	<i>o3485,3528,3555-8</i>	
	3560	γ	7	5	7	215	128	3.29		
	3561	γ	7	5	4	215	128	3.24		
	3562	δ	7	6	7	215	128	2.55		
	*3563	ε	7	7	6	215	128	3.08		
	3564	ε	7	6	4	215	128	3.03	<i>=3565-66</i>	
	3565	ε	7	6	4	215	128	2.91	<i>=3564,66</i>	
	3566	ε	7	6	4	215	128	2.85	<i>=3564-65</i>	
	3567	γ	8a	5?	7	215	128	2.74 u	<i>o3458-59</i>	
	3568	δ	8a	5	4	215	128	2.58		
	*3569	ε	8a	5	4	215	128	3.06	<i>=3570-71; o3629-32</i>	
	3570	ε	8a	5	4	215	128	3.04	<i>=3569,71; o3629-32</i>	
	3571	ε	8a	5	4	215	128	3.22 c	<i>=3569-70; o3629-32</i>	
	3572	γ	8b	5	4	215	128	3.23 c	<i>o3491</i>	
	*3573	α	8c	6	4	215	128	2.80	<i>o3574-76</i>	
	3574	α	8c	5	4	215	128	2.85 u	<i>=3575; o3573, 76</i>	
	*3575	α	8c	5	4	215	128	2.59	<i>=3574; o3573, 76</i>	
	*3576	α	8c	5	4	215	128	3.36	<i>o3573-75; r3616,</i> <i>earlier state</i> <i>o3504-5</i>	flaw on obv. die
	*3577	β	8c	5	4	215	128	2.74		

<i>Cat.</i>	<i>NAMW</i>	<i>Obs. type</i>	<i>Rev. type</i>	<i>Oars</i>	<i>Crew</i>	<i>Burnett</i>	<i>RIC</i>	<i>Weight (g)</i>	<i>Die links</i>	<i>Notes</i>
*3578	β		8c	6	5	215	128	2.36	<i>o3431-3507</i>	
3579	β		8c	5	4	215	128	3.25 u		
3580	β		8c	5	5	215	128	2.77		=3581-82
3581	β		8c	5	5	215	128	2.71		=3580,82
3582	β		8c	5	5	215	128	2.95		=3580-81
3583	β		8c	5	6	215	128	2.86		=3584
3584	β		8c	5	6	215	128	2.52		=3583
3585	γ		8c	5	4	215	128	2.98		
*3586	γ		8c	5	4	215	128	2.88		<i>r3709</i>
3587	γ		8c	5	4	215	128	3.59		
3588	γ		8c	5	4	215	128	2.95		
3589	δ		8c	5	4	215	128	3.19 u		
3590	δ		8c	5	4	215	128	2.80 c		<i>o3591</i>
3591	δ		8c	5	4	215	128	3.22		<i>o3590</i>
3592	δ		8c	5	6	215	128	3.50		
3593	δ		8c	5	4	215	128	3.24 u		
3594	δ		8c	5	4	215	128	2.46 c		
*3595	δ		8c	5	4	215	128	3.45		=3596-7; <i>o3598-608</i> ; <i>r3619</i>
3596	δ		8c	5	4	215	128	3.25 u		=3595-7; <i>o3598-603</i> ; <i>r3619</i>
3597	δ		8c	5	4	215	128	2.35		=3595-6; <i>o3598-603</i> ; <i>r3619</i>
3598	δ		8c	5	4	215	128	3.05		=3599-603; <i>o3595-7,604-8, r3620-1</i>
3599	δ		8c	5	4	215	128	3.30		=3598-600-3; <i>o3595-7,604-8</i> ; <i>r3620-1</i>
3600	δ		8c	5	4	215	128	3.40		=3598-9,601-3; <i>o3595-7,604-8, r3620-1</i>
*3601	δ		8c	5	4	215	128	3.14		=3598-600,602-3; <i>o3595-7,604-8, r3620-1</i>
3602	δ		8c	5	4	215	128	2.80		=3598-601,603; <i>o3595-7,604-8, r3620-1</i>
3603	δ		8c	5	4	215	128	3.26 u		=3598-602; <i>o3595-7,604-8, r3620-1</i>
3604	δ		8c	5	4	215	128	3.34		=3605-8; <i>o3596-603</i>
*3605	δ		8c	5	4	215	128	2.99		=3604,6-8; <i>o3596-603</i>
3606	δ		8c	5	4	215	128	3.01 c		=3604-5,7-8; <i>o3596-603</i>
3607	δ		8c	5	4	215	128	2.87		=3604-6,8; <i>o3596-603</i>
3608	δ		8c	5	4	215	128	2.75 c		=3604-7; <i>o3596-603</i>
3609	δ		8c	5	4	215	128	3.43 u		=3610-11
3610	δ		8c	5	4	215	128	3.08		=3609,11
*3611	δ		8c	5	4	215	128	3.09		=3609-10
*3612	ε		8c	5	4	215	128	2.91		=3613; <i>o3449</i>
3613	ε		8c	5	4	215	128	2.55 u		=3612; <i>o3449</i>
*3614	ε		8c	5	4	215	128	3.08		<i>o3443-48</i>
3615	ε		8c	5	4	215	128	3.04		
*3616	ε		8c	5	4	215	128	3.16		<i>r3576; later state of die</i>
3617	ε		8c	5	4	215	128	3.05		
3618	ε		8c	5	4	215	128	3.37		
*3619	ε		8c	5	4	215	128	2.75		<i>o3620-8; r3595-7</i>
3620	ε		8c	5	4	215	128	3.10 u		=3621; <i>o3619,21-8</i> ; <i>r3598-603</i>
*3621	ε		8c	5	4	215	128	2.65		=3620; <i>o3619-20,22-8</i> ; <i>r3598-603</i>
3622	ε		8c	5	4	215	128	2.87		=3623-8; <i>o3619-21</i>
3623	ε		8c	5	4	215	128	3.13		=3622,24-8; <i>o3619-21</i>
3624	ε		8c	5	4	215	128	2.80		=3622-3,25-8; <i>o3619-21</i>
3625	ε		8c	5	4	215	128	2.94		=3622-4,26-8; <i>o3619-21</i>
*3626	ε		8c	5	4	215	128	3.10		=3622-5,27-8; <i>o3619-21</i>
3627	ε		8c	5	4	215	128	2.95		=3622-6,28; <i>o3619-21</i>
3628	ε		8c	5	4	215	128	2.72		=3622-7; <i>o3619-21</i>

Cat.	NMW	Obv type	Rev type	Oars	Crew	Burnett	RIC	Weight (g)	Die links	Notes
	3629	ε	8c	5	4	215	128	3.22	=3630-2; o3569-71; r3704-8	
	3630	ε	8c	5	4	215	128	2.99	=3629-31-2; o3569-71; r3704-8	
	*3631	ε	8c	5	4	215	128	3.42	=3629-10,32; o3569-71; r3704-8	
	3632	ε	8c	5	4	215	128	3.09	=3629-31; o3569-71; r3704-8	
1042	Λ-	ε	6'	6	5			2.79		Victory on prow; 2002.14H
Obv. IMP C ALLECTVS P AVG: B1										
1043	*3633	γ	1	8	4	216	-	3.25	o3663	
	*3634	ε	1	8?	4?	216	-	2.82 c	o3635-36	
	*3635	ε	1	9?	5	216	-	3.43	=3636; o3634	
	3636	ε	1	9?	5	216	-	3.15	=3635; o3634	
	*3637	β	2	7	5	216	-	2.68	r3442	
	3638	β	2	7	5	216	-	3.22	=3639	
	*3639	β	2	7	5	216	-	2.98	=3638	
	*3640	δ	2	7	4	216	-	3.55	o3641-56,3697-9; r3443	no steering oar
	3641	δ	2	6	4	216	-	3.36	=3642-53; o3640,54-6,97-9 etc	thirteen d/ds
	3642	δ	2	6	4	216	-	3.33		thirteen d/ds
	3643	δ	2	6	4	216	-	3.32		thirteen d/ds
	3644	δ	2	6	4	216	-	3.11		thirteen d/ds
	3645	δ	2	6	4	216	-	3.11		thirteen d/ds
	3646	δ	2	6	4	216	-	3.09 u		thirteen d/ds
	3647	δ	2	6	4	216	-	2.91		thirteen d/ds
	3648	δ	2	6	4	216	-	2.86		thirteen d/ds
	3649	δ	2	6	4	216	-	2.83		thirteen d/ds
	3650	δ	2	6	4	216	-	2.80		thirteen d/ds
	*3651	δ	2	6	4	216	-	2.76		thirteen d/ds
	3652	δ	2	6	4	216	-	2.72 u		thirteen d/ds
	3653	δ	2	6	4	216	-	2.58		thirteen d/ds
	*3654	δ	2	6	3	216	-	2.70	=3655-56; o3640-53; 3697-9; r3447	
	3655	δ	2	6	3	216	-	2.77	=3654,56; o3640-53; 3697-9; r3447	
	3656	δ	2	6	3	216	-	2.76 u	=3654-55; o3640-53; 3697-9; r3447	
	3657	β	3	5	6	216	-	2.72		
	3658	β	3	5	5	216	-	3.07		
	3659	γ	3	7	6	216	-	3.59		
	3660	ε	3	5	5	216	-	2.96	=3661	
	3661	ε	3	5	5	216	-	3.24	=3660	
	*3664	β	4	5	6	216	-	3.28	o3678,88	
	3665	γ	4	5	6	216	-	2.95	o3666	
	*3666	γ	4	5	6	216	-	3.28	o3665	
	*3667	γ	4	5	6	216	-	3.31	=3668-69; o3670-72	
	3668	γ	4	5	6	216	-	2.70 c	=3667,69; o3670-72	
	3669	γ	4	5	6	216	-	3.26	=3667-68; o3670-72	
	*3670	γ	4	5	6	216	-	3.13	=3671-72; o3667-69	
	3671	γ	4	5	6	216	-	2.71 c	=3670,72; o3667-69	
	3672	γ	4	5	6	216	-	2.38 c	=3670-71; o3667-69	
	3673	δ	4	5	6	216	-	2.79	o3695-6	
	3674	ε	4	5	6	216	-	2.91		
	*3675	ε	4	5	6	216	-	3.30	r3487	
	*3676	α	5	5	4	216	-	3.12	o3677	
	*3677	α	5	5	4	216	-	2.98	o3676	
	*3678	β	5	5	6	216	-	3.19	o3664,88	
	3679	β	5	7	4	216	-	3.02		

<i>Cat.</i>	<i>NAMW</i>	<i>Obv. type</i>	<i>Rev. type</i>	<i>Ours</i>	<i>Crew</i>	<i>Burnett</i>	<i>RIC</i>	<i>Weight (g)</i>	<i>Die links</i>	<i>Notes</i>
	*3680	β	5	5	6	216	—	3.20	r3518	
	3681	β	5	5	6	216	—	3.56 u		
	3682	β	5	5	6	216	—	2.77	a3689	
	*3683	δ	5	5	6	216	—	3.00	a3687 (Victory variant)	
	*3684	ε	5	5	6	216	—	2.71	=3685; r3520	
	3685	ε	5	5	6	216	—	2.78 u	=3684; r3520	
	3686	ε	5	5	6	216	—	3.14		
	*3688	β	6	6	7	216	—	2.74	a3664,78	
	3689	β	6	6	6	216	—	2.96	a3682	
	3690	β	6	5	7	216	—	3.36 u		
	*3691	β	6	7	6	216	—	2.94	a3692	
	3692	β	6	6	6	216	—	3.24	a3691	
	3693	β	6	5	6	216	—	3.19		
	*3694	β	6	6	6	216	—	2.66	r3700	
	3695	δ	6	6	6	216	—	2.77	a3673,96	
	3696	δ	6	6	5	216	—	2.68	a3673,95	
	*3697	δ	6	5	7	216	—	3.49	=3698-99; a3640-56	
	3698	δ	6	5	7	216	—	3.09	=3697,99; a3640-56	
	3699	δ	6	5	7	216	—	2.86	=3697-98; a3640-56	
	*3700	ε	6	6	6	216	—	2.72	a3545; r3694	
	*3545	ε	6	6	6	215	—	2.94	a3700; r3528	
	3701	β	8a	5	4	216	—	3.48 u		
	3702	β	8c	5	4	216	—	2.97		
	3703	β	8c	5	6	216	—	2.89		
	3704	γ	8c	5	4	216	—	2.95	=3705-8; r3629-32	
	3705	γ	8c	5	4	216	—	2.68 u	=3704,6-8; r3629-32	
	3706	γ	8c	5	4	216	—	2.44	=3704-5,7-8; r3629-32	
	3707	γ	8c	5	4	216	—	3.30	=3704-6,8; r3629-32	
	*3708	γ	8c	5	4	216	—	2.89	=3704-7; r3629-32	
	3709	γ	8c	5	4	216	—	3.09 c	r3586	
	3710	γ	8c	5	4	216	—	2.69 c	=3711	
	3711	γ	8c	5	4	216	—	3.45 u	=3710	
	*3712	δ	8c	5	4	216	—	3.21	a3662 (bird variant), 3713	
	3713	δ	8c	5	5	216	—	2.95	a3662 (bird variant), 3712	
	3714	ε	8c	5	4	216	—	3.30 u	=3715; a3716-17	
	*3715	ε	8c	5	4	216	—	3.30	=3714; a3716-17	
	3716	ε	8c	5	4	216	—	2.80 c	a3714-15,17	
	3717	ε	8c	5	4	216	—	2.62 c	a3714-16	
	3718	ε	8c	5	4	216	—	2.50		
	3719	ε	8c	5	5	216	—	3.60		
1044	*3662	δ	3'i	5	7	—	—	2.44	a3712-13	bird on masthead
1045	*3663	γ	3'iii	5	5	—	—	2.80	a3633	animal head prow?
1046	*3687	δ	5'	5	6	—	—	2.76 c	a3683	Victory on prow

Obv. IMP C ALLECTVS AVG; B1

1047	3720	δ	1	10	8	217	129	2.83	=3721-22; a3723,27	
	*3721	δ	1	10	8	217	129	3.04	=3720,22; a3723,27	
	3722	δ	1	10	8	217	129	2.61	=3720-21; a3723,27	
	3723	δ	1	10 ^a	4 ^a	217	129	2.95 c	a3720-22,27	
	3724	ε	1	9	6 ^a	217	129	3.24		
	3725	ε	1	7	6	217	129	2.48		
	3726	δ	2	7	5	217	129	3.75		
	*3727	δ	2	9	6	217	129	2.91	a3720-22, 23	
	3728	α	3	5	5	217	129	2.77		
	3729	α	3	6	5	217	129	2.91 c	a2731-32,42	
	*3730	γ	3	5	5	217	129	3.36		
	*3733	γ	4	5	6	217	129	2.65	r3734-36	
	*3734	ε	4	5	6	217	129	2.73	=3735-36; r3733	
	3735	ε	4	5	6	217	129	3.15	=3734,36; r3733	
	3736	ε	4	5	6	217	129	2.64	=3734-35; r3733	
	3737	α	5	6	5	217	129	3.22	=3738-40	

Cat.	NMW	Obv type	Rev type	Oars	Crew	Burnett	RIC	Weight (g)	Die links	Notes
	*3738	α	5	6	5	217	129	3.20	=3737,39-40	
	3739	α	5	6	5	217	129	3.17	=3737-38,40	
	3740	α	5	6	5	217	129	2.99	=3737-39	
	3741	α	5	5	6	217	129	3.07		
	*3742	α	5	5	4	217	129	2.94	o3729,31-32	
	3743	δ	5	5	5	217	129	3.45		
	*3744	ε	7	6	5	217	129	3.28	o3745	
	*3745	ε	7	5	6	217	129	3.01	o3744	
	*3746	α	8a	5	4	217	129	3.27		
	3748	ε	8a	5	4	217	129	3.11		
	3747	γ	8b	5	4	217	129	2.89	o3749	
	3749	γ	8b	5	4	217	129	3.17	o3747	
	*3750	γ	8b	5	4	217	129	3.34		
1048	3731	α	3'ii	6	5	—	—	2.89	=3732; o3729,42	ram-headed prow?
	*3732	α	3'ii	6	5	—	—	3.42	=3731; o3729,42	ram-headed prow?

APPENDIX C: CONSERVATION AND METROLOGY

As found, the coins of the Rogiet hoard were, to a greater or lesser degree, encrusted with copper corrosion products, principally green malachite and red cuprite. Most of the coins were stable and fully identifiable and it was decided to leave these in their 'as found' condition except where cleaning was required to facilitate further numismatic study or where a coin was of numismatic interest or importance. All coins of Aurelian and very high proportions of Ticinum issues of Probus and of the Q-radiates of Allectus were cleaned, for instance.

Coins were also cleaned where encrustations prevented full identification (e.g. distinguishing between *officinae* A and Δ for the TEMPORVM FELICITAS issues of Tacitus) and where the corrosion products appeared to be unstable. In all 2,327 coins (61 per cent of the hoard) were conserved by soaking in an alkaline glycerol solution, followed by thorough rinsing and an element of mechanical cleaning. As regards metrology, therefore, the average weights of groups of coins will not be fully compatible between different issues and mints or with other published figures; and weight distributions will also be distorted to differing degrees, according to the proportions cleaned. In the summary table that follows, average weights are accompanied by figures for the percentage of each group that has been conserved. Typically, the cleaning of aureliani involved a weight loss of 2.0–2.5 per cent (batches of fifty, weighed in bulk); for individual coins, this might vary between 1.2 and 3.9 per cent (in the case of twenty-two coins of Carausius that had an average weight loss of 2.25 per cent). For the most part, the Rogiet coins are in excellent physical state, though small numbers – perhaps those scattered by the repeated ploughing – are distinctly corroded.

The table that follows provides a summary of the average weights of all coin issues represented by fifteen or more specimens in the Rogiet hoard (the figure chosen is arbitrary).

TABLE 18. Average weights of selected issues, Rogiet hoard

Reign	Mint	Issue	Officina	Av. wt (g)	S.D.	No.	% conserved
Victorinus	II	2		3.15	0.70	20	50.0
Aurelian	Rome	6	all	3.93	0.49	18	100
		7	all	4.09	0.38	15	100
		3	all	3.51	0.56	49	100
	Milan	4	all	3.47	0.41	67	100
		4	all	4.00	0.46	36	80.6
Tacitus	Lyon	1	all	3.94	0.50	84	21.4
		3	all	3.97	0.49	58	67.2
			C	4.03	0.52	38	65.8
		5	all	3.99	0.50	142	41.5
			A	4.02	0.56	68	41.2
			B	4.04	0.47	27	55.6
			Δ	3.89	0.41	43	37.2
		7	all	3.87	0.36	172	36.6
			A	3.83	0.36	43	34.9
			B	3.89	0.35	41	29.3
			C	3.95	0.40	44	29.5
			Δ	3.81	0.34	43	54.5
		8	all	3.85	0.36	19	73.7

<i>Reign</i>	<i>Mint</i>	<i>Issue</i>	<i>Officina</i>	<i>Avg. wt (g)</i>	<i>S.D.</i>	<i>No.</i>	<i>% conserved</i>
Probus	Rome	2	all	3.81	0.50	59	55.9
		3	all	3.99	0.44	31	74.2
		1	all	3.79	0.31	18	50.0
		2	all	3.95	0.44	48	52.1
	Lyon	1	all	3.96	0.34	19	73.7
		2	all	4.02	0.48	90	30.0
			I	4.16	0.71	17	47.1
			II	3.95	0.48	23	26.1
			III	4.05	0.43	28	25.0
			III	3.96	0.27	22	27.3
		3	all	4.04	0.50	73	42.5
			I	4.11	0.56	16	31.3
			II	4.03	0.46	24	41.7
			III	4.02	0.52	24	50.0
		4	all	3.95	0.45	239	22.1
			I	3.91	0.51	55	21.8
			II	3.96	0.43	73	20.5
			III	3.91	0.46	48	16.7
			III	4.00	0.40	61	29.5
		'5'	all	3.98	0.50	15	100
		6	all	3.92	0.42	129	33.6
			I	4.04	0.38	43	23.8
			III	3.86	0.44	47	48.9
			III	3.90	0.38	33	21.2
		8	all	3.95	0.52	40	42.5
		9	all	3.94	0.43	244	28.3
			A	3.94	0.41	49	18.4
			B	3.97	0.52	59	36.2
			C	3.90	0.36	77	29.9
			D	3.93	0.46	59	20.3
	Rome	1	all	3.86	0.54	51	76.5
		3	all	3.79	0.44	16	56.3
		5	all	3.94	0.52	25	48.0
		6	all	3.78	0.45	77	55.8
			Γ	3.80	0.38	18	44.4
			Δ	3.72	0.51	18	72.2
	Ticinum	2	all	4.05	0.66	49	69.4
			P	3.98	0.47	16	50.0
		3	all	3.82	0.45	21	100
		4	all	3.83	0.41	32	50.0
		6	all	3.83	0.40	26	80.8
		9	all	3.91	0.47	70	34.3
		10	all	3.78	0.45	22	18.2
	Siscia	7	all	3.84	0.44	17	76.5
Carus et sui	Lyon	6	all	3.80	0.39	16	62.5
	Ticinum	2	all	3.82	0.47	23	78.3
Dio & Max	Lyon	1b	all	3.90	0.52	31	25.8
		2	all	3.90	0.41	60	46.7
		7-8	all	3.89	0.36	88	47.1
	Ticinum	2→	all	3.94	0.47	32	46.9
Allectus	C	QC	Laetitia	3.05	0.26	129	93.8
		QC	Virtus	2.99	0.26	328	87.5
	London	QL	all	2.95	0.37	292	96.6

The Lyon mint figures may be compared with those published by Bastien: while they are broadly comparable, in virtually every case the Rogiet average is the higher, as might be expected from the proportions of unconserved coins in the samples.⁹²

Of the coinages summarised here, only the Q-radiates of Allectus are both numerous and for the most part cleaned. Summary statistics for these are presented in Table 19 and charts of their weight distributions in Fig. 10.

TABLE 19. Descriptive statistics: weights of Allectus, Q radiates (grams)

	<i>QL all</i>	<i>QC all</i>	<i>QC Laetitia</i>	<i>QC Virtus</i>
Mean	2.952	3.009	3.053	2.991
Standard Error	0.022	0.012	0.023	0.015
Median	2.908	3.003	3.041	2.984
Standard Deviation	0.371	0.265	0.261	0.265
Minimum	2.08	2.35	2.42	2.35
Maximum	4.48	4.15	4.15	3.92
Sum	861.88	1374.88	393.77	981.11
Count	292	457	129	328

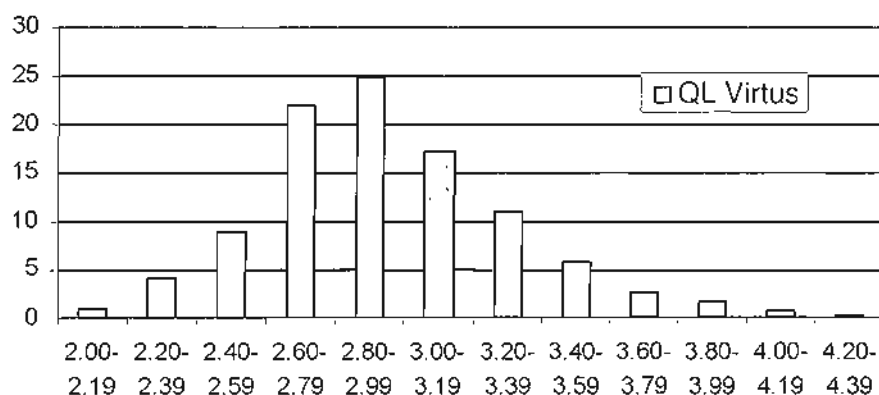


Fig. 10a. Percentage weight distribution: Allectus, London.

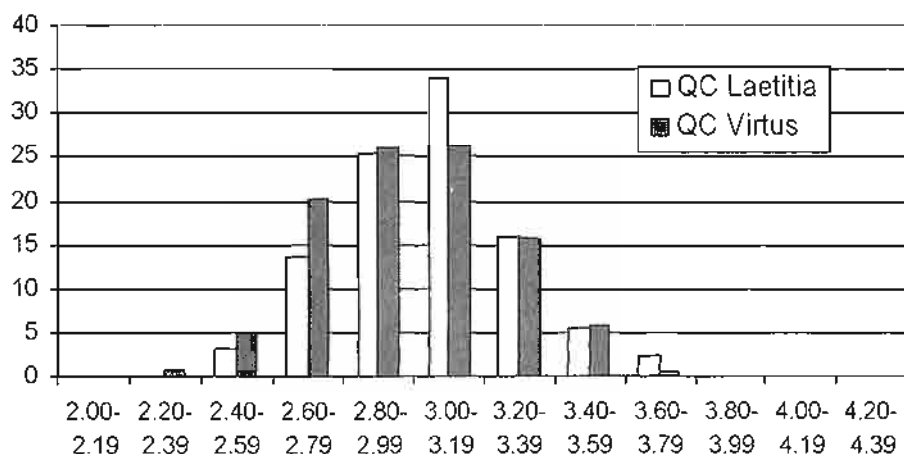


Fig. 10b. Percentage weight distributions: Allectus, C mint.

⁹² Bastien 1972, 82; 1976, 96 n. 20

Very few single issues of aureliani in the Rogiet hoard match the Q-radiates for size. The percentage weight distributions for the two largest – issues 4 and 9 of Probus at Lyon, are shown as Fig. 11, though bearing in mind the comments at the head of this appendix, these are intended simply as indications of the broad weight distributions that appear to be typical of all issues of aureliani, as was to be the case for the *nummus*-issues of Diocletian and his colleagues from the mid 290s.⁹³ Almost all weights typically lie between 3 and 5 g, with tails each of around 1.5 per cent of specimens above 5 g and below 3 g, the extremes in the Rogiet hoard being 7.72 g (Probus, Ticinum 652/1) and 2.66 g (Tacitus, Lyon 325/12).

One coin (0.4%) and three coins (1.3%) weighing over 5.50 g are omitted from issues 4 and 9 respectively.

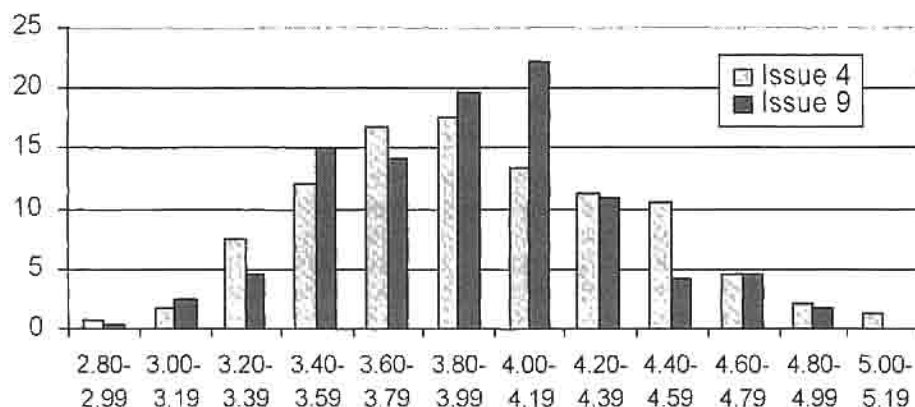


Fig. 11. Percentage weight distributions: Probus, Lyon.

APPENDIX D: ANALYSES OF COINS FROM THE ROGIET HOARD

MARY DAVIS

A detailed study of the metallurgy of the coin types in the Rogiet hoard lies beyond the scope of this paper, though the excellent preservation of the bulk of the coins holds the promise of useful work in the future, both as regards composition and, potentially, in the study of the technique(s) used to prepare blanks with silvered surfaces. However, as part of the study of the coins of Allectus, a sample of Q-radiates and, for comparison, aureliani, was analysed.

The coins were prepared for analysis by polishing their edges until the uncorroded core was reached and a flat tangential surface obtained. The Carausius and Allectus coins were analysed by energy dispersive X-ray spectrometry (EDX) using a CamScan MaXim 2040 scanning electron microscope (SEM) with a Link Isis energy-dispersive X-ray detector. The polished surface of the coins was analysed for 100 live seconds using a working distance of 35 mm and an accelerating voltage of 20 kV. The coins were placed in a metal clamp to aid conductivity and no coating was necessary. The results were quantified using a ZAF correction program. The listed results in the table are the average of three analyses from separate areas on the polished surface. All analyses totalled between 98.5 and 101.5%, and were then normalised to 100%.

SEM-EDX has the advantage over wavelength dispersive spectrometry (WD) in that as large an area as possible, usually between $\times 200$ and $\times 1500$ magnification in this case ($\times 20000$ is used for WD analysis) can be selected for analysis which helps to reduce any distortion of the composition of the sample due to its heterogeneity, especially where lead is present in the alloy. However, SEM-EDX is less effective in analysing trace elements and in quantifying minor elements, but does produce relatively accurate analyses for the major elements. These results are therefore most useful for examining the variations in the main constituents of the copper alloys. The exact limits of detection depend on several factors including matrix and counting time: representative figures for EDX are from 0.05 to 0.26 weight % of the element.⁹⁴

Some previous analyses of coins from the hoard had been undertaken by WD analysis, using a MicroSpec WD spectrometer. The resulting paper published by Anheuser and France aimed to assess how the coins had been silvered, concluding that this was achieved using electrochemical replacement silvering with a silver chloride paste.⁹⁵ However, recent research at Bradford University has found evidence for amalgam silvering on similarly alloyed and plated coins.⁹⁶ Anheuser and France had not selected to look for the presence of mercury during their WD analysis, so some of

⁹³ For example, the Bridgend hoard: Besly 2002, 180, 210–15.

⁹⁴ Pollard and Heron 1996, 52.

⁹⁵ Anheuser and France 2002.

⁹⁶ Vlachou *et al.*, in press.

the coins from their original analyses were reassessed, using the same instrument. Small traces of mercury were found in the silver, but considerably less than in the results obtained by Vlachou *et al.*; and so this issue remains inconclusive and needs further research.

TABLE 20. Rogiet hoard: composition of some coins of Carausius and Allectus (four major elements, %)

			Cu	Ag	Sn	Pb
Carausius						
	<i>Aurelianus</i>					
996/1	PAX AVGGG	S P // C	94.7	2.5	1.5	1.3
Allectus						
	<i>Aureliani</i>					
1006	ORIENS AVG	S P // ML	91.9	2.1	2.5	3.5
1007	LAETITIA AVG	S P // C	94.5	3.5	1.4	0.8
1008	FIDES MILIT	S P // C	95.5	2.3	1.5	0.7
	<i>Q-radiates</i>					
1017 (3176)	VIRTUS AVG	// QL	92.7	1.4	2.4	3.4
1017 (3201)	VIRTUS AVG	// QL	92.7	1.2	3.5	2.7
1017 (3244)	VIRTUS AVG	// QL	94.1	1.5	2.1	2.4
1020 (3269)	VIRTUS AVG, r.	// QL	94.1	1.7	1.8	2.4
1031 (3320)	LAETITIA AVG (1)	// QC	94.9	1.9	1.7	1.5
1035 (3373)	LAETITIA AVG (2)	// QC	93.8	1.3	2.1	2.7
1035 (3380)	LAETITIA AVG (2)	// QC	93.7	1.2	1.3	2.8
1041 (3537)	VIRTUS AVG	// QC	95.4	1.3	1.1	2.2
1043 (3642)	VIRTUS AVG	// QC	96.0	1.3	1.0	1.7
1043 (3689)	VIRTUS AVG	// QC	94.8	1.7	1.8	1.7
1043 (3704)	VIRTUS AVG	// QC	94.2	1.4	1.4	3.0

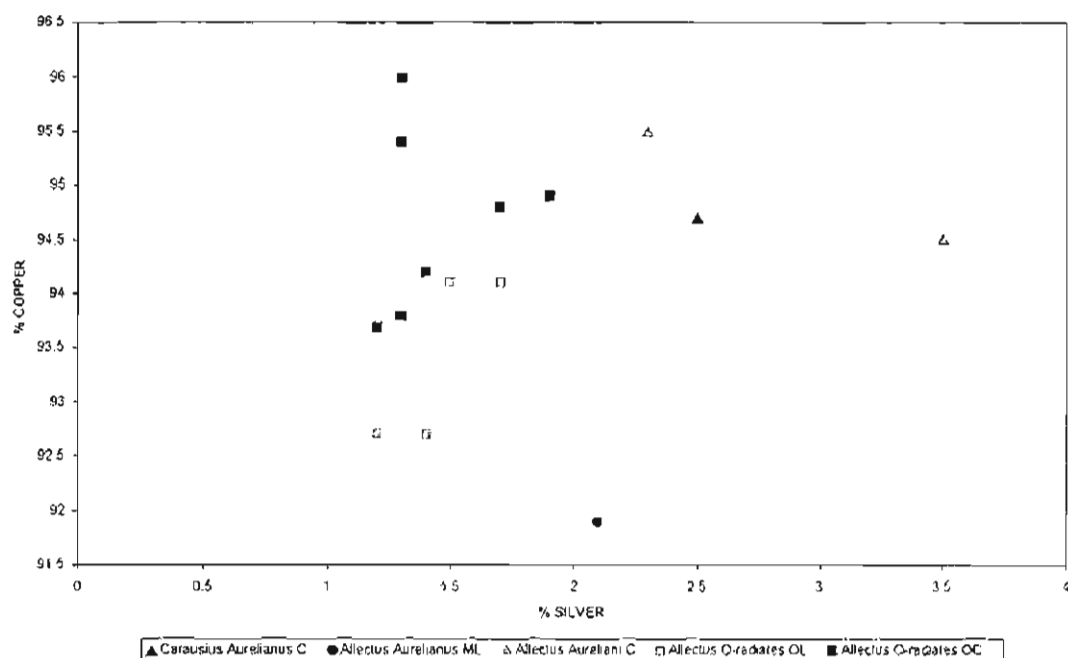


Fig. 12a. Rogiet: scatter plot. Copper v. Silver. Carausius and Allectus.

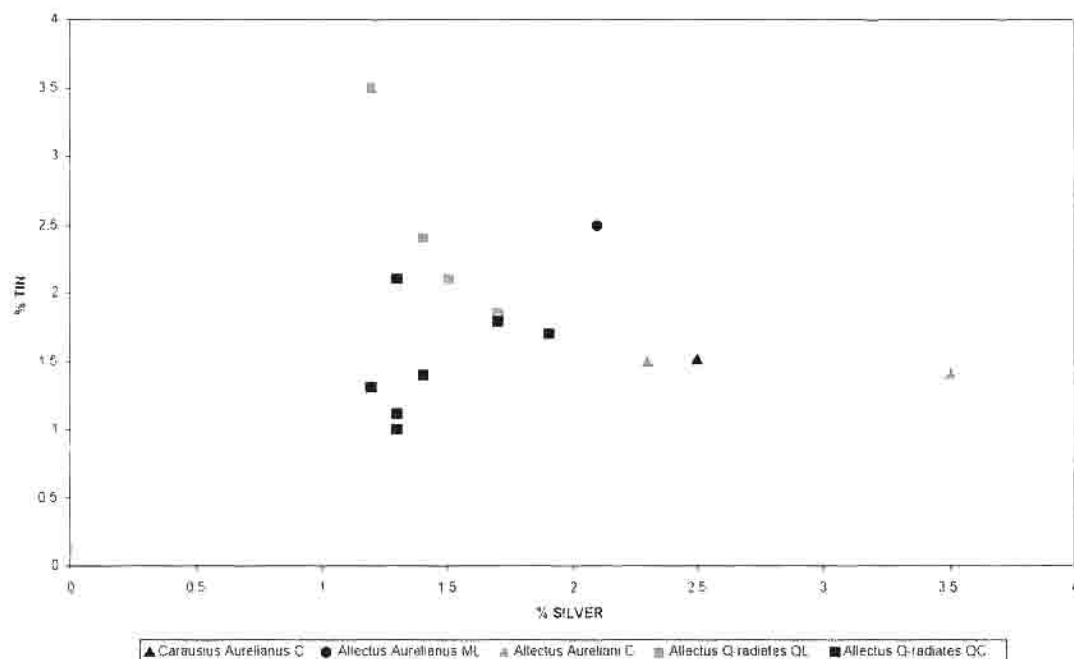


Fig. 12b. Rogiet: scatter plot, Tin v. Silver, Carausius and Allectus.

Scatter plots for copper and tin against silver from Table 20 are given as Figs 12a and 12b. These appear to demonstrate the possibility that the alloys used at London differed from those at 'C' in that London tin contents are generally higher than those of 'C' and usually above two per cent, whilst those at 'C' are generally below two per cent; further evidence, perhaps, of differing practices and two separate mints. Cope's figures for Allectus appear to bear this out, but with a combined sample of only twenty coins of Allectus, more work would need to be done to confirm or modify this view.⁹⁷

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PLATE 4







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PLATE 8







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BESLY: THE ROGIET HOARD (15)





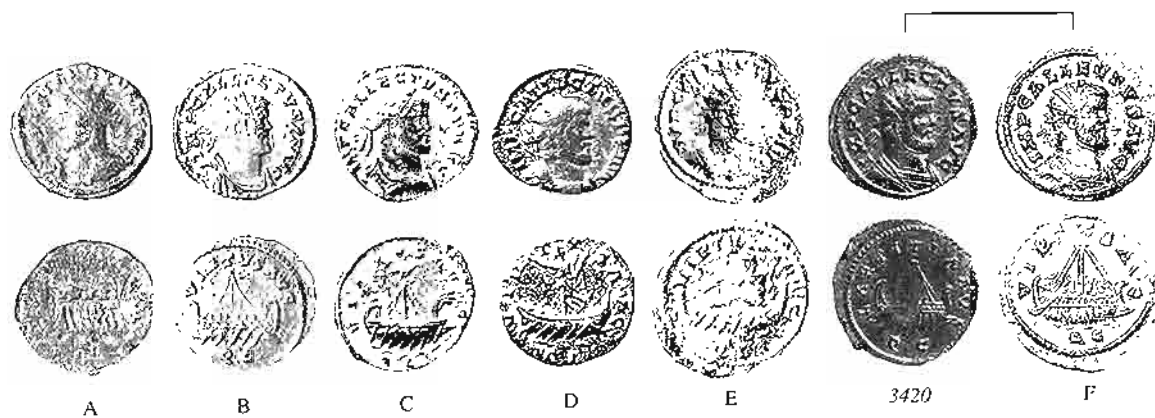












BESLY: THE ROGIET HOARD (23)

THE COINAGE OF KING ALDFRITH OF NORTHUMBRIA (685–704) AND SOME CONTEMPORARY IMITATIONS

D.M. METCALF

THE rare coins attributed to King Aldfrith of Northumbria (685–704) are generally considered to be the earliest sceattas which proclaim that they are royal coins. One side is given up to the name, +*Aldfridus*. This is conventionally described as the obverse, although it is likely that it was the upper die. Aldfrith's coins have been offered as an argument that the primary-phase sceattas in the south-east of England were also royal, even though they do not name a ruler. If Northumbria had a royal coinage at the end of the seventh century, on the very fringes of the area within which coinage was in use, it is implausible (so this argument goes) that the king of Kent, for example, would have been less active than Aldfrith in seeking to control and benefit from the coinage of his kingdom.¹ Although the legend, *Aldfridus*, does not add the word *rex*, it has never been doubted that this is the name of a king. Perhaps the question should be critically re-examined, given the parallel case of the runic porcupines reading *Æthilræd*, which were once confidently attributed to the contemporary ruler King Æthelred of Mercia (674–704). The concentration of finds of the *Æthilræd* coins in Kent, and their virtual absence in Mercian or Middle Anglian territory, argues against the attribution. The coins of Aldfrith, on the other hand, have been found north of the Humber, where they make up a much higher proportion of the primary phase coins than they do in other regions. Their dumpy fabric and good-quality silver alloy point to a primary date; and their absence from the Aston Rowant hoard of c.710 can perhaps be explained in terms of remoteness plus rarity. The issue is quite uniform and compact in its type and legend (Fig. 1).



Fig. 1. Sceattas of Aldfrith from Yorkshire (North Riding) and Farningham, cat. nos 19 and 13 respectively. Twice actual size.

The letter *Æ* is always chevron-barred and is capped by an exaggeratedly long serif; the *z* is always reversed; the *U* is generally square, with a foot, right; the *L* and the *F* sometimes hint at a familiarity with runes. The central boss is sometimes replaced (or supplemented) by a pellet; and the inner border is usually dotted, but sometimes linear. In general the details of the design are very closely adhered to. That might incline one to suppose that the issue was relatively short-lived. The horse-like creature with triple forked tail sometimes has a mane, but small variations in its style seem to have no intentional significance. The inspiration for the types was perhaps a Merovingian coin which had reached Northumbria, but of course there could have been a non-numismatic source for the iconography. The creature is reminiscent of the image of the devil, which appears on the deniers of Jublains (*Diablenas*), where it is a canting device.² It is very

¹ Metcalf 1994a, 13.

² Belfort 1892–5, nos 1736–7.

difficult to imagine, however, that the same meaning was intended in Northumbria. The number of years during which the type was minted is unknown. It would have been technically possible for the whole issue to have been produced within at most four or five years, and that period could in theory have been almost anywhere in Aldfrith's reign, which lasted just short of twenty years. (A relatively late date appears more likely.) On the other hand minting could have been low-volume and spread over a longer period.

In any case the coinage of Aldfrith stands in isolation chronologically. His predecessor (and half-brother) King Ecgrith (670–85) apparently issued the famous York pale gold thrymsas, on which Elizabeth Pirie has actually read the king's name in runes.³ Their alloy suggests that they would have to belong near the beginning of Ecgrith's reign. (Two coins given to Ecgrith in *BMC* are modern forgeries, to which the spurious provenance of a grave-find at Heworth, Co. Durham, was attached, perhaps as a hoax to deceive the incumbent of the parish, who took an interest in such matters.⁴) And it may be that after Aldfrith's reign there was a gap, when no sceattas were minted north of the Humber until c.740 – unless, of course, the main part of Series J belongs to York, as the writer has long maintained, without winning much concurrence. Eventually King Eadberht (737–58) minted sceattas with the royal name on one side and a mythical horse-like animal on the other, no doubt deliberately reminiscent of Aldfrith's coinage.

Bede passes a favourable judgement on Aldfrith, who restored the fortunes of the kingdom of Northumbria after the disastrous defeat and death of King Ecgrith at Nechtanesmere (near Forfar): 'Aldfrith succeeded Ecgrith in the throne, being a man most learned in scripture, said to be brother to the other, and son to King Oswy; he nobly retrieved the ruined state of the kingdom, though within narrower bounds.'⁵ This refers to Aldfrith's parentage and to his having originally trained as a monk. If the kingdom was in a ruined state in 685, the issuing of sceattas is perhaps unlikely to have begun very soon. Stenton follows Bede's assessment, remarking that 'the learning and scholarship of the Northumbrian monasteries in the age of Bede were made possible by the king's work in the critical years following the defeat at Nechtanesmere'.⁶ In effect we know virtually nothing personal about the events or developments of the reign. All we can say is that Aldfrith was soon embroiled in various disputes with Bishop Wilfrid, concerning endowments and the status of Ripon. But this tells us more about the difficult personality of the bishop than it does about the king. Wilfrid soon had to remove himself to Mercia.

Thus the new coinage of sceattas appears as a false dawn. Certainly Aldfrith's four successors – Osred, Cenred, Osric and Ceolwulf – did not mint sceattas bearing the royal name and the mythical animal. Elizabeth Pirie dismisses the four of them as politically inept.⁷

Her remark carries implications about political versus commercial reasons for minting, or (it would be better to say) the balance between the two. The king's personal interest and involvement in the project may be presumed, as he was literate, and given the novelty of the coins' design. And if two specimens were recovered in the excavations of Whitby Abbey, where his royal sister Ælfflæd was abbess (in succession to Hilda), we may well hesitate over the question whether the money was a royal gift,⁸ or whether it just happened to find its way to Whitby in the course of trade.⁹ To set up a royal mint in Deira is one thing; the extent to which it was thereafter patronised by the merchant community is another. How far the minting of silver was encouraged by the political stability of the kingdom, and how far it was in response to much wider developments and cyclical changes in the trade around the North Sea coasts, dominated by the Rhine mouths area, is difficult to assess when the date of issue of the sceattas is vague within a twenty-year period. It may be that the hiatus between the primary and secondary phases was more severe in the Humber estuary than it was in southern England, just because Deira was in some sense 'at the end of the

³ Pirie 1992.

⁴ Grierson and Blackburn 1986, 338.

⁵ Bede, *HE* iv, 26.

⁶ Stenton 1971, 89.

⁷ Pirie 1996, 25.

⁸ But the two specimens are not closely similar to each other.

⁹ The nature and quality of the finds from the excavations has prompted the comment that the abbey's inmates were living in some style: Campbell, John and Wormald 1982, 79.

line'.¹⁰ In order to reach a judgement, we should certainly take into account all the primary-phase sceattas found north of the Humber.

The first recorded coin of Aldfrith was sold in the Cuff sale in 1854. It was acquired by the British Museum, and in due course was included in Keary's catalogue of the Anglo-Saxon series. A second specimen, likewise without geographical provenance, has a long pedigree which takes it back to the C.W. Loscombe sale in 1855 and is now in Birmingham Museum.

By 1984 the tally of known specimens had risen to seven, which James Booth published as a mini-corpus.¹¹ Of these, two (already mentioned) were excavated at Whitby Abbey in the 1920s, and are now in the British Museum.¹² Two were metal detector finds from Redcliff, North Ferriby, on the northern shore of the Humber estuary, in 1979 and 1980 respectively.¹³ The remaining specimen was excavated far to the south, at Hamwic (the modern Southampton) in 1982.¹⁴ Booth recognized one obverse die which was used with three different reverses, and also a reverse die-link. That created the impression, albeit from a statistically very small sample, that Aldfrith's coinage was on a modest scale indeed – consonant with its rarity.

Patrick Finn, offering an Aldfrith for sale in 1998,¹⁵ wrote: 'The last time I offered this coin for sale was in SNC in December 1987 when, as a recent find, it was the eighth known specimen [and only the fourth, he might have added, not in a public collection] the asking price of £2000 reflected that rarity. There have been a few more on the market since, hence the realistic figure I now place on it [£975].' It seems to have escaped Finn's memory that he had offered another, in his *List 3* (1994), for £1,200. Nevertheless, his awareness of what had come onto the market is valuable information.

Meanwhile, a note of uncertainty was introduced into the attribution. It was suggested by Michael Dolley that the issue should be attributed to a King Aldfrith of Lindsey, who is mentioned in the king-list for that kingdom, and who apparently witnessed a charter of King Offa, issued between 772 and 786. This suggestion was taken into account by Stewart Lyon in his fundamental review of the Northumbrian series.¹⁶ The idea should now, however, be firmly rejected. The dumpy fabric, the weights, and more importantly the alloy compositions of the coins were quite strongly against a late eighth-century date. And the discovery of the Hamwic specimen was virtually conclusive: it was excavated in a charcoal layer within a building, dating from c.700–725. There is a dendrochronological date of c.710 from the planks lining a nearby well. Moreover Simon Keynes has expressed the opinion that the name Ealfrid in the witness-list of Offa's charter (S.1183), preserved in a fourteenth-century chartulary, is almost certainly a misreading for Ecgrif (Offa's son).¹⁷ As Peter Sawyer rightly comments: 'It is, therefore, uncertain when Aldfrith was king of Lindsey. The best that can be said is that it was before the genealogy [i.e. the king-list] was compiled.'¹⁸

Since Booth's mini-corpus of 1984, with its five provenanced specimens and two others, a further 13 provenances have come to light, plus several more specimens sold without provenance. With this increased volume of evidence, new geographical patterns are beginning to emerge (Fig. 2). There is a clear concentration in the eastern parts of Yorkshire, and in northern Lindsey, i.e. the southern coastlands of the Humber estuary. There is otherwise little from Lincolnshire or East Anglia, but there are several finds from the London area and one from Woodnesborough, Kent (close to the Wantsum Channel). This skipping over the East Midlands and East Anglia probably implies that the coins found in the south-east had been carried there on long journeys rather than passing from hand to hand gradually. Otherwise the proportions would be higher in Lincolnshire and would decline progressively with distance from the Humber.

¹⁰ Metcalf 1994b, 205–7.

¹¹ Booth 1984, 97.

¹² Excavations in the area immediately to the north of the later abbey church, 1920–8. See Allen 1943; Cramp 1976. The two specimens are illustrated in Booth 1984.

¹³ Pirie 1984. Miss Pirie records the circumstances in which the information passed into responsible hands.

¹⁴ Metcalf 1988, 51f. (no. 125) and pl. 7.

¹⁵ Patrick Finn *List 12* (1998), item no. 55.

¹⁶ Lyon 1955–8.

¹⁷ Sawyer 1998, 49.

¹⁸ Sawyer 1998, 49.

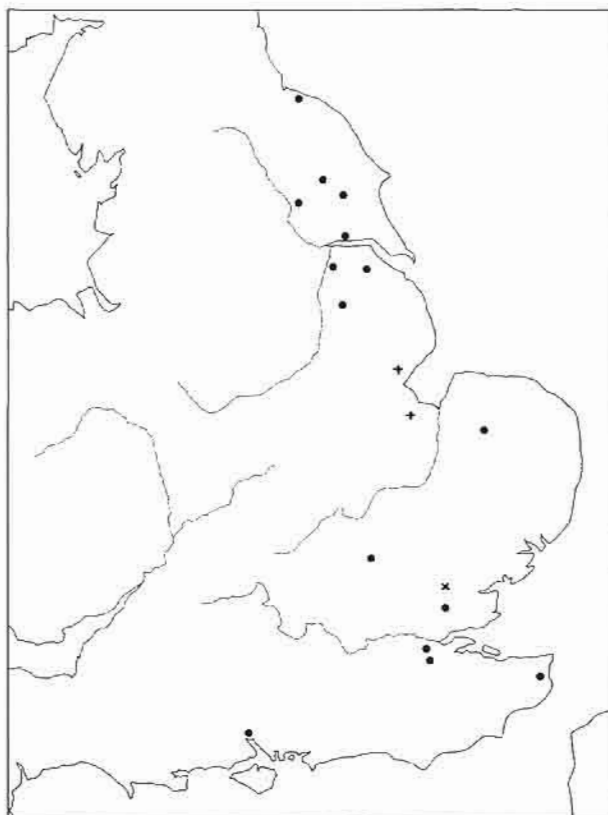


Fig. 2. Map of finds. Dots = coins of Aldfrith. Crosses = Aldfrith/Saroaldo imitations. x = Aldfrith/cross imitation.

Similarly, there are now coins of Eadberht, and plenty of well-attested finds of stycas from East Anglia and from the south-east, e.g. Caister on Sea, and Richborough, whereas before they were almost confined to territory north of the Humber.¹⁹ Stycas turn up quite frequently in the Netherlands, and even the odd coin of Eadberht has been reported from there.²⁰ Thus there is reasonably clear evidence that from the middle of the eighth century at least, Northumbrian coinage was being carried down England's east coast by the Frisian *marchands-navigateurs*, who ventured as far north as York (and probably Whitby).²¹ The map, Fig. 2, can be compared with a published map of the late Anglo-Saxon single finds of coins of the York mint, which illustrates an even wider dispersion south of the Humber.²²

If we group the provenances according to the 11 regions of England that have been used in previous analyses,²³ the percentages of coins of Aldfrith among all primary sceattas²⁴ from the regions are shown on the facing page (p. 151).

The figure which catches the eye in the regional tabulation is the 19 per cent north of the Humber. Not only is this well in excess of any other region (south of the Humber the average is 1.3 per cent), but also it is a large enough fraction of the currency of Yorkshire to suggest that Aldfrith's coins were functioning properly as money in the south-eastern part of his kingdom. The figure of 19 per cent is as useful to the monetary historian as any index one could think of. Because the stray finds of a type may be expected to be in proportion to their share in the regional currency, it bypasses any uncertainty arising from the under-use of Aldfrith's dies. Apart from the

¹⁹ Pirie 1986.

²⁰ Pirie 1986; and data kindly communicated by Dr W. Op den Velde.

²¹ Lebecq 1983.

²² Metcalf 1998, 55.

²³ For example in Metcalf 2004.

²⁴ Totals as in Metcalf 2004, 7.

	<i>All primaries</i>	<i>Aldfrith</i>	<i>%</i>	<i>Provenances</i>
North of Humber	42	8	19	N. Ferriby (3), Whitby (2), Dunnington, Malton, North Riding Yorkshire
Lindsey	45	2	4	Brocklesby, (?)Flixborough
Norfolk	104	1	1	Bradenham
Suffolk	112	0	0	
Essex, north	35	0	0	
The South-east	190	4	2	Dartford, Farningham, Woodnesborough, (?)S. Essex
Sussex	11	0	0	
Wessex	41	1	2	Hamwic
Upper Thames	45	0	0	
Middle Anglia	91	1	1	Hitchin
Severn/Trent	77	1	1	South Yorkshire

usual problem of statistical margins of variation, the main hazard lies with the reputation, in years gone by, of some of the local detectorists for mendacity and unhelpfulness. Still, if any more Aldfriths were sold by them without provenance, that could only raise the percentage higher. Michael Bonser was careful to remark, apropos the sceattas from (?)Flixborough, that it was not even certain whether they were found north or south of the Humber.²⁵

The quadrilateral which lies between the Humber and the Vale of Pickering and between a north-south line a couple of miles west of York and the North Sea, i.e. roughly the old East Riding, is the region within the much larger kingdom of Northumbria where finds of sceattas are heavily concentrated and where, no doubt, a monetary economy was developed.²⁶ The discovery of a third specimen of Aldfrith's coinage at North Ferriby, where higher ground runs down to the coast, facilitating access to the quadrilateral, makes one wonder whether that place may not have been performing some or all of the functions of a *wic* – and even whether (as at Hamwic) it was not the location of the mint. There are no recorded finds of coins of Aldfrith from York (although Dunnington is nearby). York was doubtless the mint-place at a slightly later date. One thinks of the analogy of Winchester, which replaced Hamwic as the West Saxon mint-place early in the penny series. North Ferriby seems to be exclusively a primary-phase site for sceattas, whereas York has yielded almost no sceattas earlier than the secondary phase. The question where (within the quadrilateral) Aldfrith's coins were minted can therefore be considered to be open.

One should not over-interpret small numbers, by comparing North Ferriby with its hinterland. The relative quantities of finds are mainly a function of the intensity of searching on different sites. But it may be that monetary exchanges were still to some extent concentrated, in the primary phase, at the meeting-point, on the coast. In the time of Eadberht, the role of North Ferriby may have been taken over by South Newbald, itself not very far inland.

What proportion of Aldfrith's coinage was carried south, across the Humber? Unfortunately the numbers in the tabulation are, again, partly a function of the intensity of searching, and cannot safely be treated as an index of the scale of the regional currencies. One cannot say that, because eight specimens have been found north of the Humber and ten south of the Humber, therefore a good half of Aldfrith's coins were exported southwards. It may be so, more or less, but precision is certainly not possible using that argument.

One could indulge in the academic exercise of saying that if Aldfrith's coins, minted from *x* dies (see below) made up 19 per cent of the primary-phase currency north of the Humber, then 100 per cent was equivalent to the output of roughly 5*x* reverse dies; and that if half the output of the Aldfrith dies left the region, then one should halve the notional average die-output to, say, 5,000.

²⁵ Bonser 1997. Certainly from Flixborough we have a good series of sceatta finds from controlled excavations (with none of Aldfrith); and we know that the site was disgracefully plundered. The main practical problem is that the detectorists' finds, notable (as Mike Bonser remarks) for the exceptional condition of the coins, may very well include a substantial hoard, of which the composition is of course chronologically restricted, and not necessarily typical of Lindsey.

²⁶ Metcalf 2002.

Booth identified five non-singleton dies among six coins: three specimens from obverse die A, and two from reverse die d. The Hamwic find came too late for Booth to study its dies; the present writer, in publishing it, commented that the obverse was probably from die D. Even with such a small sample, this was enough to create the impression that Aldfrith's coinage was struck from only something like 8 obverse and 15 reverse dies. The result was and is, obviously, subject to revision, but the die-estimation, combined with the rarity of the type in 1984, suggested a small-scale issue – which was open to the historical interpretation that it was struck mainly for propaganda or symbolic reasons. Now that we have 26 specimens, more than 20 of which are well enough preserved for their dies to be checked, the picture looks very different. If Booth's specimens had been a random sample, and his die-links correctly observed, one would have expected an equally random sample of 20 specimens to include something like a dozen reverse non-singletons. In fact the new material adds only one clear duplicate. It seems desirable, therefore, to re-examine Booth's die-links. The inscriptional side of Aldfrith's coins (nominally the obverse) is easier to die-check than the animal side. Some idea of the variation in the letter-forms is given in Fig. 3. One prefers to base arguments on the numbers of reverse dies, but if the dies were used in a 1:1 ratio the answers should be much the same. In the reign of Eadberht, the animal was on the lower die (technically the obverse). In so far as one can be definite from half-tone photographs, Booth 2 (Ab) plainly has a different initial cross from his Aa, and the letter S is at a different angle. As regards nos 1 and 3 (Aa and Ac) the dies are certainly very similar, but prolonged examination makes it questionable whether they are the same. On no. 3 the right limb of the A trails outwards. As regards the reverses, Booth 4 and 5, one would be disposed to give the die-link the benefit of the doubt, although no. 5 has thicker legs and some of the angles seem to be slightly different. Heavier or lighter striking can make two die-duplicates look different. If one's perception is that the original total of dies was small, one will be a little bit more inclined in doubtful cases to decide in favour of identity.

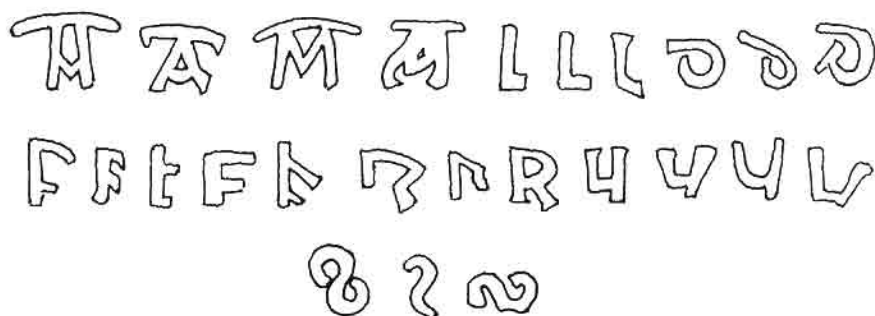


Fig. 3. Characteristic letter-forms on Aldfrith's sceattas.

Numismatists will have an instinctive awareness that a random sample of 20 specimens which yields very few die-duplicates implies that the original total of dies was considerably greater than 20. For the benefit of historians and archaeologists, one may briefly rehearse the framework of the argument. If there were, for example, just four non-singletons (i.e. specimens which are not the only representative of their die) among 20, or one-fifth, then the known dies will likewise represent about one-fifth of all the dies that were used – which takes us into the region of a hundred. Dies were quite high-tech in the late seventh century, and expensive to manufacture. Why make a hundred pairs, all with the same designs, in at most 20 years, unless they were needed? A pair of dies was technically capable of striking, on average, let us say 10,000 coins before it was discarded. If c.100 dies provided 19 per cent of the currency in the east Yorkshire quadrilateral, the total currency will have been roughly the equivalent of the output of c.500 dies. Even if half the output of the Aldfrith dies was exported, we should multiply 500 by 5,000, to reach a total of 2,500,000 sceattas, by the end of the primary phase. Even allowing for margins of statistical error, it is sufficiently clear that a monetary economy in the quadrilateral was amply

supplied with coinage. What happened in Aldfrith's reign was something quite new. Where all the silver came from is (as usual) a matter for speculation. The only possible clue is from those trace elements and minor constituents in the alloy which would survive cupellation in unchanged proportions. Gold is the most useful element from that point of view. The gold traces are high, but no higher (on the basis of only two exact chemical analyses of coins of Aldfrith) than those found in primary-phase sceattas minted in the Netherlands.

The silver content of the alloy as it would have been perceived at the time is best approximated by adding together the measured amounts of silver, gold, and lead. For the Hamwic find the result is 89 per cent, and for *BMC* 3, ex Cuff, it is 94.7 per cent.²⁷ Whether these two specimens are typical of the whole series, as regards their alloy, it is impossible to know. There might have been a deterioration towards the end of the issue. Subjack 99, for example, looks more weathered than good silver should. On the other hand, the alloy may well have been maintained at around 90 per cent throughout or almost throughout the issue.

The weights are, unfortunately, on record for only about half the known specimens. They suggest a standard in the region of 1.20–1.25 g, which is only slightly lower than for the primary sceattas in the south-east. If we group the coins into two groups, one with a rounded boss (with or without a superimposed central pellet) and the other (smaller) group without a boss but with a central pellet, it looks as if the coins of the second group may on average be lighter. This could well be a clue to the internal chronology of the issue, although more weights are needed to make the conclusion secure. Another variation is that the inner border is occasionally linear rather than dotted (Fig. 4). It may be, therefore, that in the late stages of the issue, both the alloy and the average weight of the coins deteriorated somewhat. If there should in the future be an opportunity for more high-quality chemical analyses, the specimens to select would include some from the second group, in order to test the hypothesis of decline. A failure to maintain an original high standard seems to be a characteristic feature of the early secondary phase in southern England.

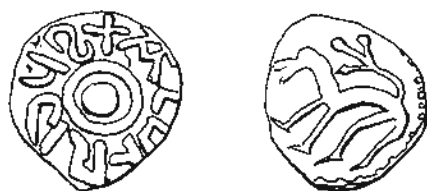


Fig. 4. Specimen with linear inner border. Abramson collection (cat. no. 26).

As regards variation in the artistic style of the coins, the writer is unable to detect any obvious progression. The animal's legs are sometimes sinuous, sometimes stiff as if it were wearing drainpipe trousers, and sometimes Thurberesque. One would definitely judge that more than one die-cutter was at work (cf. the bull-necked animal, Fig. 5), but as to their priority (if they were not concurrent) it would be rash to comment. On a few specimens the animal has a mane, and these tend to be stiff-legged. But there are no easy correlations of style or lettering.

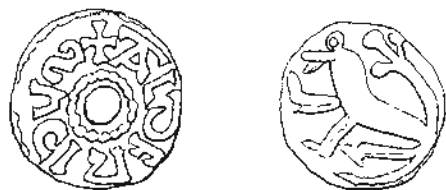


Fig. 5. Specimen with bull-necked animal and sophisticated lettering. From South Essex (cat. no. 12).

²⁷ For the Hamwic coin, see n. 14 above. Ag 86.39%, Au 1.90%, Pb 0.74%, Zn 0.31%, Sn not found. For *BMC* 3, see Archibald and Cowell 1988, 58 and 63: Ag 93.3%, Au 1.3%, Pb 0.1%, Zn 0.3%, Sn 0.2%. Note that the figure of 93.3% published in Cowell 1985, 47 refers to the same analysis (Ag only).

An internal chronology for Aldfrith's coins will remain of merely academic interest unless a hoard of them should turn up; in principle, one might then be able to say something about wastage rates. The age-range of the single finds from north and south of the Humber respectively would seem to be similar, i.e. there is no reason to suspect that dispersion southwards began only at a late date.

To sum up, our monetary understanding of Aldfrith's coinage, resting as it now does on a corpus of specimens which has quadrupled, and which now includes 18 provenances, has shifted since it was last written about in 1993.²⁸ The scale of the issue was significantly greater than had been supposed; and there is now a swathe of provenances from south of the Humber. The involvement of Aldfrith's coinage in a commercial context of east-coast trade reaching the Humber estuary is reasonably clear. The kingdom of Northumbria participated in the wider world of North-Sea trade, and its coinage was closely influenced by the weight- and alloy-standards that obtained in the south-east. Although thrymsas had been minted in the time of Ecgrith, apparently on a very small scale, the new situation developed, essentially, during Aldfrith's reign. Was Bede aware of the politics of monetization, one wonders? Probably not.

The evidence of die-estimation, which now shows that the number of dies originally used was considerable, puts a new complexion on the virtual absence of single finds of Aldfrith's coins from York and its vicinity. What had seemed merely an absence of evidence now begins to look more like negative evidence. There are very few primary-phase sceattas found at York, of whatever series. The hypothesis that Aldfrith's coins were minted on Humberside, probably at North Ferriby, deserves to be put into the debate. Series J, beginning at most ten years after Aldfrith's reign, offers a strong contrast. It is plentiful in and around York, and also more widely. That would seem to reflect a new stage in York's commercial importance. Plentiful stray finds of Series J in the Netherlands, and as far afield as Jutland, indicate a Frisian connection. York's southern *suburbium* of Fishergate seems to have been home to a Frisian colony. Taking into account the lack of a royal name and the completely different iconography and style – and then the reversion to an Aldfrithian style under Eadberht – perhaps one should contemplate the radical idea that Series J was minted by the Frisian merchant community, in the time of the undistinguished kings Osric and Ceolwulf. A lack of accountability might help to make sense of the prevalence of plated specimens on base metal cores in Series J. Some similar heretical thoughts have been emerging from a study of the distribution of stray finds of Series X (the Wodan/monsters) and their insular imitations in England.²⁹

Aldfrith's sceattas were even imitated south of the Humber. The horse-like animal with triple tail appears, laterally reversed, and paired with reverse dies which are almost certainly imitating the 'Saroaldo' type. As regards their date, no chemical analyses are yet available. The Saroaldo series is represented in the Aston Rowant hoard, apparently from its earliest dies, and a date of origin for the series only a year or at most a couple of years before the hoard's deposit has therefore been suggested. That would give a *terminus post quem* for the Aldfrith imitations, which could be very late primary, or even early secondary. (But that does not tell us when the Aldfrith series began.) Two specimens are known to the writer (Fig. 6). One, which was sold by Baldwins, was found at West Walton, Norfolk (very near Wisbech) in August 1990. The pseudo-legend imitates the distinctive letter delta seen on the Saroaldo coins. A second specimen was found near

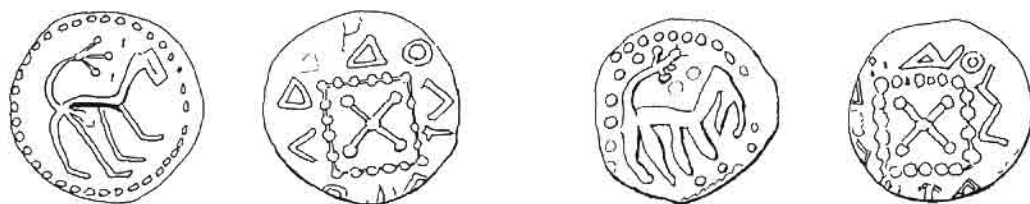


Fig. 6. Imitations from the Fen margins: West Walton and Boston.

²⁸ Metcalf 1994a, 117–19.

²⁹ Metcalf (forthcoming).

Boston, Lincolnshire in 2004. The proximity of these two finds from near the Wash is intriguing. They hint – although two swallows do not make a summer – that their origin might lie in west Norfolk or the Fen edges, where minting briefly reflected the politically fragmented character of Middle Anglia.

A third coin, Fig. 7, with a different reverse design, was found in Essex c.1994. It was apparently, but not absolutely certainly, part of a hoard of 20 or so primary sceattas, of Series B, C, D (2c), D (8Z), D (10) and primary E, found near one of the Roding villages, i.e. three or four miles north-west of Chelmsford.³⁰ The absence of Series A may give some indication of a relatively late date in the primary phase. The fourth coin, unprovenanced, is essentially identical with the third, but certainly from different dies.³¹



Fig. 7. Imitations from the Rodings hoard, and unprovenanced.

LIST OF SPECIMENS

These are described in detail, with a view to ruling out the possibility of die-identity. The writer has pored over the coins repeatedly, but is rather more confident about the obverses than about the reverses. Almost all the specimens in the list have been published with photographic illustration, six by Booth and many of the rest in the *Coin Register* (CR). Line-drawings have been provided above for a few unpublished specimens, traced from enlarged photographs x4, and then reduced to x2. The original seven specimens are followed by provenances in alphabetical order.

1. *North Ferriby*, 1979. 0.73 g (cleaned). Die-axis 3 o'clock. Booth 1984, no. 1. Dies Aa. *Illus.* Booth 1984, pl. 7, 1 and Pirie 1984, pl. 11, 15. *Obv.* Thin initial cross, lop-sided A with lop-sided chevron, L with foot sloping down, squareish Ds. F with short lower bar placed low down, rounded U with right limb shorter, seems to be attached to inner border. S with wider upper loop. Dotted inner border. Boss. *Rev.* Sinuous style. The first foot extends backwards behind the heel. Extremely similar to no. 2, but the angle of the lower fork of the tail seems to differ.

2. *North Ferriby*, 1980. 1.22 g. Die-axis 6 o'clock. Booth 1984, no. 2. Dies Ab. *Illus.* Booth 1984, pl. 7, 2 and Pirie 1984, pl. 11, 16 and A (enlargement). *Obv.* Bold initial cross. A with limbs more nearly vertical. L as on no. 1. Ds more rounded. F and R as on no. 1. Top of U neatly squared off. S appears to have vertical upper serif. Boldly dotted inner border. Central pellet. *Rev.* Sinuous animal with mane. Thin feet at different angles.

3. *Birmingham Museum and Art Gallery*, accession no. 1993 C 468 (gift of Mr I.D. Finney); ex C.W. Loscombe (1855), lot 1045; E.W. Rashleigh (1909), 126; Lord Grantley (1943), 758; A.E. Bagnall; and Spink Coin Auction no. 1 (1978), lot 68. Booth 1984, no. 3. Dies Ac. *Obv.* Similar to no. 2, but right limb of A trails outwards. Right limb of U splayed outwards. Bold dotted inner border. Field rises towards (indistinct) central pellet. *Rev.* Very similar to no. 1, but longer-bodied animal, with the first leg and the body almost in a straight line. The upper part of the third leg is correspondingly long and straight. The first foot is angled (unlike nos 1 and 2). Cf. no. 25.

4. *BMC Northumbria 3*; ex Cuff (1854). 1.26 g. Booth 1984, no. 4. Dies Bd. *Obv.* Thin initial cross. A with large chevron. Foot of L is very short and turns up. F (upside-down?) with short bar at foot. R with long, curved top. Wide, shallow U. Dotted inner border. oval in shape. Field and pellet as no. 3. *Rev.* Sinuous animal. Fourth leg foreshortened. First foot extends backwards slightly. Beak-like jaws biting pellet? Same die as no. 5? Cf. no. 24.

5. *Whitby Abbey excavations, BM 1*, 1.18 g. Booth 1984, no. 5. Dies Cd. *Obv.* Large A (as no. 4) but angled differently. The first D has a large vertical serif. Rest of legend somewhat indistinct. Large dotted inner border. Rounded boss. *Rev.* Sinuous animal, similar to no. 4. First foot extends backwards. Outer dotted border argues for die-identity, whereas the shape of the space between the second and third legs argues against it. Same die as no. 4?

³⁰ I am indebted to the finder, Mr J. Fay, who informed me by letter, seeking identification, and supplied a photograph, and also to Joe Bispham for his good offices. He talked wisely to the finder, and persuaded him to be forthcoming about the circumstances of his discovery. But the Aldfrith copy was not specifically discussed at that stage.

³¹ I am indebted to the auctioneers, Dix, Noonan and Webb for information. They were unable to send a photograph of the reverse, hence there is only one image in Fig. 7, but they provided a careful sketch of the reverse.

6. *Whitby Abbey* excavations, *BM* 847. 1.07 g. Booth 1984, no. 6. Dies De. *Obv.* Obscure, but the A is distinctively wide-angled. Right-angled L. The arms of the F are angled upwards and are well separated. Central pellet? *Rev.* Distinctively short-limbed animal, rather angular. First foot at sharp angle.
7. *Hamwic* excavations, 1.23 g. Metcalf 1988, no. 125. *Obv.* Wide-angled A, very similar to no. 6. Right-angled L. The arms of the F are also right-angled, and close together. The second D is seriffed. The top of the right limb of the U is lower. Dotted inner border. Well-rounded boss. *Rev.* Sinuous animal. Indistinct.
8. *Brocklesby*, Lincolnshire, near. CR 1988, no. 138. 0.87 g. Very worn. Die-axis 20°. *Obv.* Wide-angled A. Square U with foot. *Rev.* Sinuous animal. Die-checking is very difficult.
9. *Dartford*, Kent. M/d find. July 2003 by Cullen Franklin. Weight not recorded. CR 2003, no. 127. *Obv.* Thin lettering. Wide-angled A. Right-angled L. F with well-spaced limbs of approximately equal length. Wide, flat-topped R. The limbs of the U are joined across the top. Thin dotted inner border. Boss with central pellet. *Rev.* Sinuous animal, with tapering feet, of which the first and second are parallel with each other. Cf. no. 22.
10. *Dunnington*, East Riding Yorkshire (4 miles east of the centre of York). Weight not recorded. CR 2002, no. 142. M/d find, 6 October 2002, information courtesy of Tony Bardsley. *Obv.* Thin lettering. Wide A, bar of L attached part-way, F with small lower bar near the base. Wide, flat-topped R. Flat base of U slopes upwards. Dotted inner border. Field rises towards central pellet. *Rev.* Sinuous animal, similar to no. 9. Upper fork of tail angles inwards. This coin is generally similar to no. 4.
11. *East or West Bradenham*, Norfolk. 1.23 g. 270°. M/d find, 1995, site 30636. CR 1995, no. 112. *Obv.* Narrow A with thin chevron. Right-angled L. Ds with very little tail. Tall, thin F with short lower bar. U with rounded base and unusual left-facing serifs. S with flattened lower loop. Dotted inner border. Well rounded boss. *Rev.* Sinuous, long-bodied animal, similar to no. 3, but lower fork of tail has large pellet. Half a dozen sceatta finds from Bradenham are all of the primary phase.
12. *Essex, south*. Weight not recorded. *Obv.* The chevron of the A is a curve rather than a V. The first D has a horizontal tail. Wide, flat-topped R. Compact second D. The left limb of the U slopes outwards. Recumbent S. Dotted inner border. Flattened boss. *Rev.* The thick, rounded back of the neck is distinctive. The first foot is held in front of the jaws. The third and fourth feet are parallel and more or less above each other. See Fig. 5. A fully-struck specimen, on which the detail of the lettering is exceptionally clear.
13. *Farningham*, Kent, near? Find-spot reported as (?) Darenth valley, found during excavation of pipe-line. Kent County Council, Portable Antiquities Scheme KENT-57F7E0. *Obv.* The initial cross is bolder than usual, but unseriffed. Wide-angled A. Right-angled L. F with long bars. The second D is apparently crossed (*th*). Square-bottomed U. Dotted inner border. Rounded boss and pellet. *Rev.* Animal with mane. Feet are narrow and rectangular. Border of bold, well-spaced pellets. See Fig. 1.
14. (?) *Flixborough*, Lincolnshire. Weight not recorded. No illustration. One of 97 sceattas (plus 15 stycas) listed by M.J. Bonser in 1997, from 'an unknown locality in the north of England': (Bonser 1997, 42 f.). One may now speculate that, had the site been north of the Humber, the proportion of coins of Aldfrith would have been appreciably higher. To be published by Mr Bonser.
15. *Hitchin*, Hertfordshire, c.1988. Information courtesy of Mr M.J. Bonser.
16. *Malton*, East Riding Yorkshire. 1986/1997. From a site near Malton ('Site 1'). A total of 16 sceattas includes 6 'porcupines', unspecified. It is not clear, therefore, how many other primary-phase sceattas there were as well as the one coin of Aldfrith – perhaps only two or three? Listed in Bonser 1997, 42.
17. *North Ferriby*, c.1985. Information courtesy of Mr M.J. Bonser.
18. *Woodnesborough, Kent* (on the outskirts of Sandwich, at the southern loop of the Wantsum Channel). 0.9 g. 180°. M/d find by Mr M. Hacking, October 1995. CR 1996, no. 126. Much of the detail is obscure. *Obv.* F with long arms, of equal length, and at right angles. Flat-topped R. V-shaped U. Linear inner border. Boss. *Rev.* Animal with thick, straight legs?
19. *Yorkshire, North Riding*, November 2003. (The North Riding could mean, for example, the Malton area, within the quadrilateral.) Information courtesy of finder, Mr Ian Postlethwaite. *Obv.* Small initial cross close beside tall, narrow A with long, curved serif above. L with short bar. F appears to have short bar at base. Wide, flat-topped R. Square-bottomed U. Large S. Dotted inner border. Small central boss. *Rev.* Animal with mane. Bold eye. Long upper jaw. 'Drain-pipe' legs, with clomping feet. This coin is generally similar in style to no. 5. See Fig. 1.
20. *Yorkshire, South*. M/d find, by 2003. 1.1 g. CR 2003 (*BNJ* 2004), no. 126. *Obv.* Narrow A with long, straight serif. L with foot sloping down. Distinctive F with bars sloping down, the upper bar not at the top. Small I. Square-bottomed U without foot. Recumbent S. Linear inner border. Rounded boss. *Rev.* Animal with unusually short legs. The first foot is raised in front of the jaws. The second and fourth feet are parallel with each other. This die is similar to no. 6. Abramson collection. Cf. no. 21.
21. *NCirc* 104 (1996), p. 13, item no. 119. 1.15 g. From the same dies as no. 20.

22. *Patrick Finn, List 3* (1994), item no. 29. Weight not recorded. *Obv.* Large, wide-angled A with straight serif above. Curved U. Inner border of well-separated dots. Boss with central pellet. *Rev.* Sinuous animal. First foot at right angles to leg. The dies are similar in style to those of the Dartford find, no. 9.
23. *Patrick Finn, List 12* (1998), item no. 55. 17.6 gr = 1.14 g. This appears to be the same specimen as *NCirc* 95 (1987), item 7064 ('the 8th known specimen'), where, however, the weight is given as 1.33 g (high!). *Obv.* Clumsily seriffed initial cross. Distinctive A with left foot curved inwards. V-shaped U. Dotted inner border. Flattened boss. *Rev.* Animal with stiff legs and club-like feet. The forked tail has an unusually large terminal pellet.
24. *Patrick Finn, List 15* (1999), item no. 54. 17.3 gr = 1.12 g. *Obv.* Wide-angled A. I is right-angled. Wide, square-bottomed U. Dotted inner border. Field rises towards (indistinct) central pellet. *Rev.* Sinuous animal. The die is similar in style to no. 4 (*BMC* 3).
25. *Subjack 99* (Vecchi auction 11, 5 June 1998, lot 99; ex Stacks sale 7.12.1994, lot 2312; said to be ex *NCirc* 1987). *Obv.* Wide-angled A. Right-angled L. F with seriffed lower arm. R with rounded loop. Curved U with long foot. Large dotted inner border. Central pellet. *Rev.* Sinuous animal with long back, small gape. The lower and upper forks of the tail branch off at different points. The die is similar to no. 3 above.
26. *Abramson collection*. *Obv.* Large initial cross. Wide-angled A. Squareish D. Lower bar of F slopes down. Rounded U. Upper loop of S is larger. Linear inner border. Rounded boss. *Rev.* Rather small, thinly-engraved animal, with thin legs and delicate feet. See Fig. 4.

Imitations

1. *West Walton*, Norfolk, August 1990. *Obv.* Animal with triple tail. Laterally reversed. Neat workmanship. *Rev.* Saltire in standard. Pseudo-legend, includes delta, unbarred A and O. See Fig. 6.
2. *Boston*, Lincolnshire, 2004. *Obv.* As no. 1, but the animal is clumsily drawn, particularly the head and jaws. *Rev.* As no. 1. *Abramson collection*. See Fig. 6.
3. *The Rodings hoard*, c.1994. *Obv.* Animal with triple tail, laterally reversed. Group of three pellets below neck. *Rev.* Cross potent, with pellet in each angle. Pseudo-legend, includes delta-like characters. See Fig. 7.
4. *Dix, Noonan, Webb* auction. No provenance. *Obv.* and *rev.* by the same hand as no. 3, but different dies. See Fig. 7.

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MERCIAN HEGEMONY AND THE ORIGINS OF SERIES J SCEATTAS: THE CASE FOR LINDSEY

JOHN NAYLOR

THE geographically widespread secondary sceatta issue of Series J (Fig. 1) has consistently presented difficulties in mint attribution. Suggested locations for potential mints range from Kent through the Midlands and into Northumbria, although none have been seen as providing conclusive evidence to secure their case.¹ Michael Metcalf made the most recent suggestion, of a Northumbrian origin, over a decade ago. He argued this on the combined grounds of its overall distribution, iconography, occurrence in relation to other secondary phase types in the possible areas of origin, and the perceived gap in minting between the issues of the Northumbrian kings Aldfrith (684–705) and Eadberht (737–58).² In my own work I have previously supported his conclusions. This was based around two factors: first, Series J is the most abundant secondary phase issue found in the area between the Humber and the Tees; and second, it was the most common secondary phase type from the Fishergate excavations in York.³ Remains of a regionally important trading/production settlement were uncovered there with its most active phase of settlement spanning the early to mid-eighth century.⁴ Such settlements may have gone hand-in-hand with the minting of coinage (as seen, for example, for Series H at Hamwic, Series R at Ipswich and Series L at London).

The period since Metcalf's proposal has witnessed a massive increase in the numbers of finds known, mostly through the links built up between metal-detectorist groups and archaeologists/numismatists.⁵ One hundred and seventeen finds of Series J coinage are now known from England,⁶ more than double that available to Metcalf in the early 1990s, and it is now possible to give further consideration to the origins of the series.

Series J is the amalgamation of Types 36, 37, 60, 72 and 85.⁷ Of these, Types 37 (46 finds, 39 provenanced) and 85 (29 finds, 27 provenanced) were large-scale issues, and Type 36 (20 finds, 17 provenanced) moderately substantive. Types 60 (2 finds, neither provenanced) and 72 (9 finds, all provenanced) are much less common.⁸ Metcalf argued that Types 37 and 85 were produced at the same mint in Northumbria and suggested that Type 36 shared this origin from its level in the make-up of Northumbria's overall secondary sceatta assemblage.⁹ Type 72 was less clear, and Metcalf preferred a Low Countries source which borrowed the Type 37 obverse, rather than seeing Type 72 as a member of a related series of English coinages.¹⁰ Given the wide distribution of the types, the crux of Metcalf's argument, especially relating to Types 37 and 85, lay in the

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¹ Metcalf 1977; Stewart 1984; Metcalf 1994, 341–67.

² Metcalf 1994, 359.

³ Naylor 2004a, 42.

⁴ Kemp 1996.

⁵ The main impetus for these has been the work of the Fitzwilliam Museum's Early Medieval Corpus (EMC) and, since 1997, the Portable Antiquities Scheme.

⁶ Based on EMC data, available at www.em.fitzwilliam.cam.ac.uk/coins/emc (access date 25/10/05), plus the unpublished finds from the Fishergate (York) excavations. It must be noted here that seven Series J coins were found during the Fishergate excavations but three of these formed part of a hoard, the depositional circumstances of which are not clear, whether an accidentally dropped purse of coins, or a deliberate deposit. All data is derived from the EMC unless otherwise stated.

⁷ Metcalf 1994, 342.

⁸ The stylistic attributes of each type have been fully described and discussed by Metcalf (1994, 354).

⁹ Metcalf 1994, 352–63.

¹⁰ Metcalf 1994, 355.

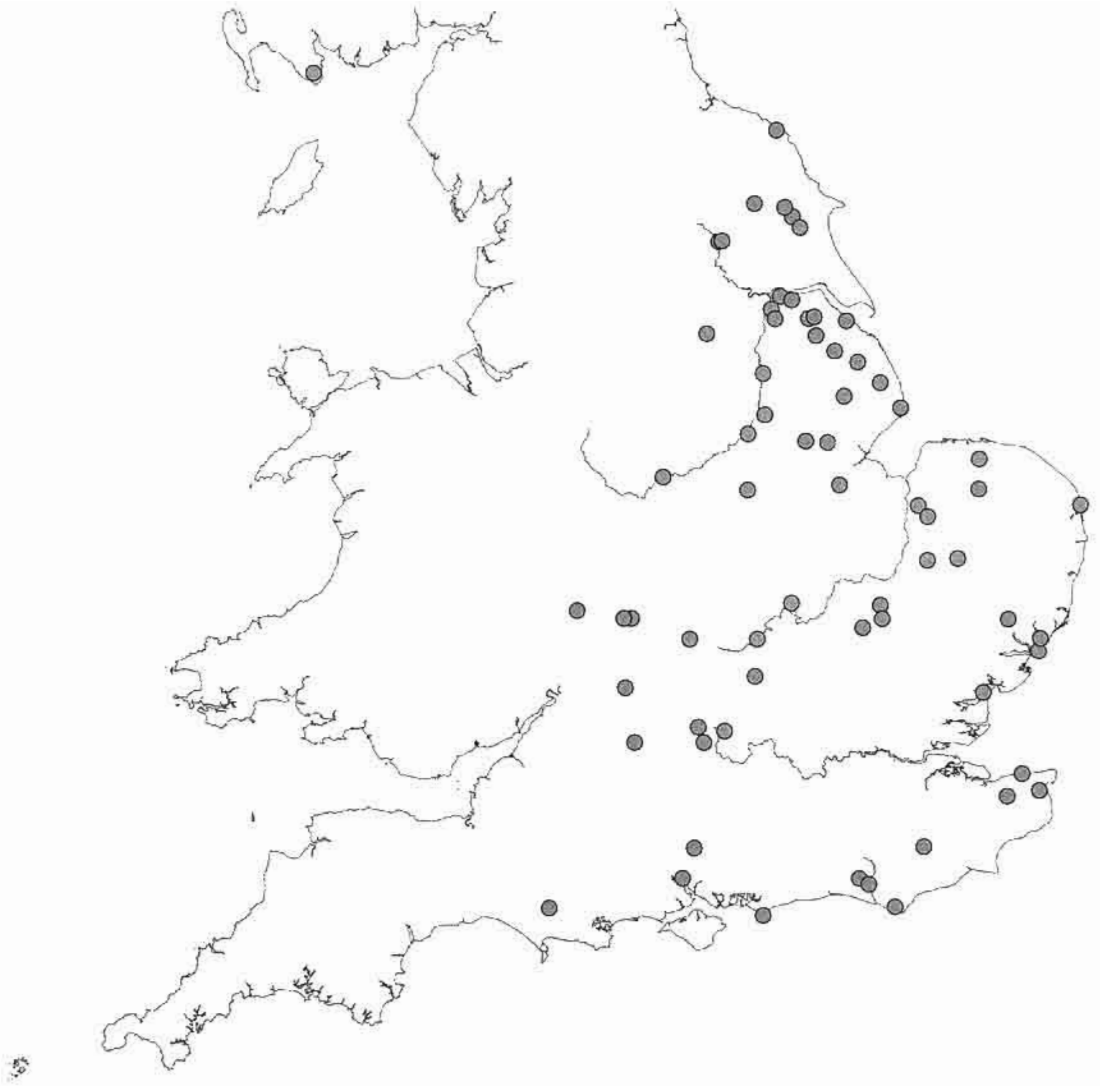


Fig. 1. The distribution of all finds of Series J in Britain.

stylistic analysis of the obverse iconography. He argued that Type 85 was a royal issue, with Type 37 a contemporary issue by king and bishop. Although a reasonable interpretation, Metcalf himself admitted that this did not necessarily lie easily with the political history of early eighth-century Northumbria.¹¹ Indeed, it has been pointed out that, if this was the case, the length of the entire issue may have had to be as short as two years.¹² In addition, Archibald found it difficult to accept that Series J could be attributed to York given its very different style when compared to both the preceding coins of Aldfrith (684–705) and the subsequent issues from Eadberht (737–58), both of which share stylistic elements and carry a regal signature.¹³ Gannon, in fact, has interpreted the beasts found on the reverses of these Northumbrian coins as lions and suggested that they may be seen as some form of ‘royal badge’. If correct this would also make the attribution of Series J to York difficult.¹⁴ The notion of the royal/ecclesiastical link to Type 37 is

¹¹ Metcalf 1994, 344.

¹² Pirie 2002, 72.

¹³ Archibald 1997, 152.

¹⁴ Gannon 2003, 125–7.

also discounted in Gannon's analysis, in that this imagery is generally considered apotropaic rather than overtly political, and there is little reason to expect Type 37 to be any different.¹⁵ Finally, a recently discovered sceat of Offa shows a whorl of four birds around a cross in a similar manner to that seen on Type 37, which may indicate that this at least may be more suitably placed within the remit of issues made south of the Humber.¹⁶ Overall, the attribution of Series J to York on stylistic grounds is insecure and cannot form the core argument in any discussion of mint place. We must now turn to the distribution evidence.

Figure 1 attests to the widespread nature of Series J, with a discernable concentration of findspots along the Humber corridor and a general correlation with the Rivers Trent and Great Ouse. In addition, Series J is well known from the Midlands, a situation which has previously suggested a southern Midland origin.¹⁷ However, although a widespread issue, variation in distribution by type may hold further clues to their origin. There is no reason to suppose that the individual types making up Series J need necessarily have come from the same mint, although they do appear to be stylistically related.¹⁸ In the period since Metcalf suggested a Northumbrian origin, the steady increase in numbers of finds has fleshed out the distribution pattern of each type, although, notably, the numbers north of the Humber are little affected, with the exception of the finds from Fishergate. The new finds, alas, offer few additional clues to their mint place, being an even mix of Types 36, 37 and 85. The three substantive issues (Figs 2–4), Types 36, 37 and 85, remain widespread, although the concentration of Type 85 along the south bank of the Humber and along the Lincolnshire coast is a new feature. Most new finds of Type 36 are in the corridor from south Lincolnshire to Norfolk. Type 37 shows little overall change in its distribution, being widely found east of the Pennines down to the southern Midlands. Type 72 (Fig. 4) remains unknown north of the Humber, but a few more finds have been made in the southern Midlands. When considering this data mention must be made of the relatively high numbers of possible imitative coins that have been found.¹⁹ These are concentrated in the southern and eastern Midlands, and around the south coast from Southampton to Essex. They account for a high proportion of the total finds of Series J in these areas. Further north, in Lincolnshire, a few possible imitations are known, but they form a very low percentage of the total finds there. Even taking account of the possible imitations these distributions are little more helpful in assessing mint location than they were ten years ago. It would, though, seem more likely that Types 37 and 85 can be placed somewhere either immediately north or south of the Humber (if the latter, somewhere in Lincolnshire on this evidence).

One of Metcalf's strongest arguments for the Northumbrian origin of Series J was his calculations regarding proportions of Series J compared with finds of other contemporary coinages.²⁰ At that time, Series J made up the overwhelming majority from York itself and his conclusions were realistic. With the large increase in the numbers of known finds it is informative to repeat these calculations. In Yorkshire Series J now accounts for 22.5% of the total contemporary coin assemblage, 41.9% of the total for English issues and 58.3% of those from the city of York. In Lincolnshire, Series J accounts for 17.6% of all contemporary issues, and 32.4% of English issues.

At first glance Northumbria may perhaps appear a more acceptable minting location than Lincolnshire, but in neither case is the evidence overwhelming. Here it may be instructive to undertake regression analysis on the data.²¹ Figure 5 shows the regression analysis for Series J as a whole, exhibiting the greatest proportion within the area from York to southern Midlands along

¹⁵ Gannon 2003, 38–9.

¹⁶ Archibald and Dhenin 2004, 21–7; Gannon 2003, 110–11.

¹⁷ Metcalf 1977.

¹⁸ Metcalf 1994, 342–3.

¹⁹ All of the data regarding imitations have been taken from individual entries on the EMC database. Coins are listed as potentially imitative if they are stylistically inconsistent with most finds, are made of base metal, or are made of base metal cores plated in silver.

²⁰ Metcalf 1994, 358–61.

²¹ This follows Metcalf's argument that by plotting a certain coin type as a proportion of the total contemporary assemblage, its region of origin should become apparent (see, for example, Metcalf 2000). The method here is a slight variation on Metcalf's, using grid squares of 625 km² (25 × 25 km). Likely imitations were not included in this analysis.

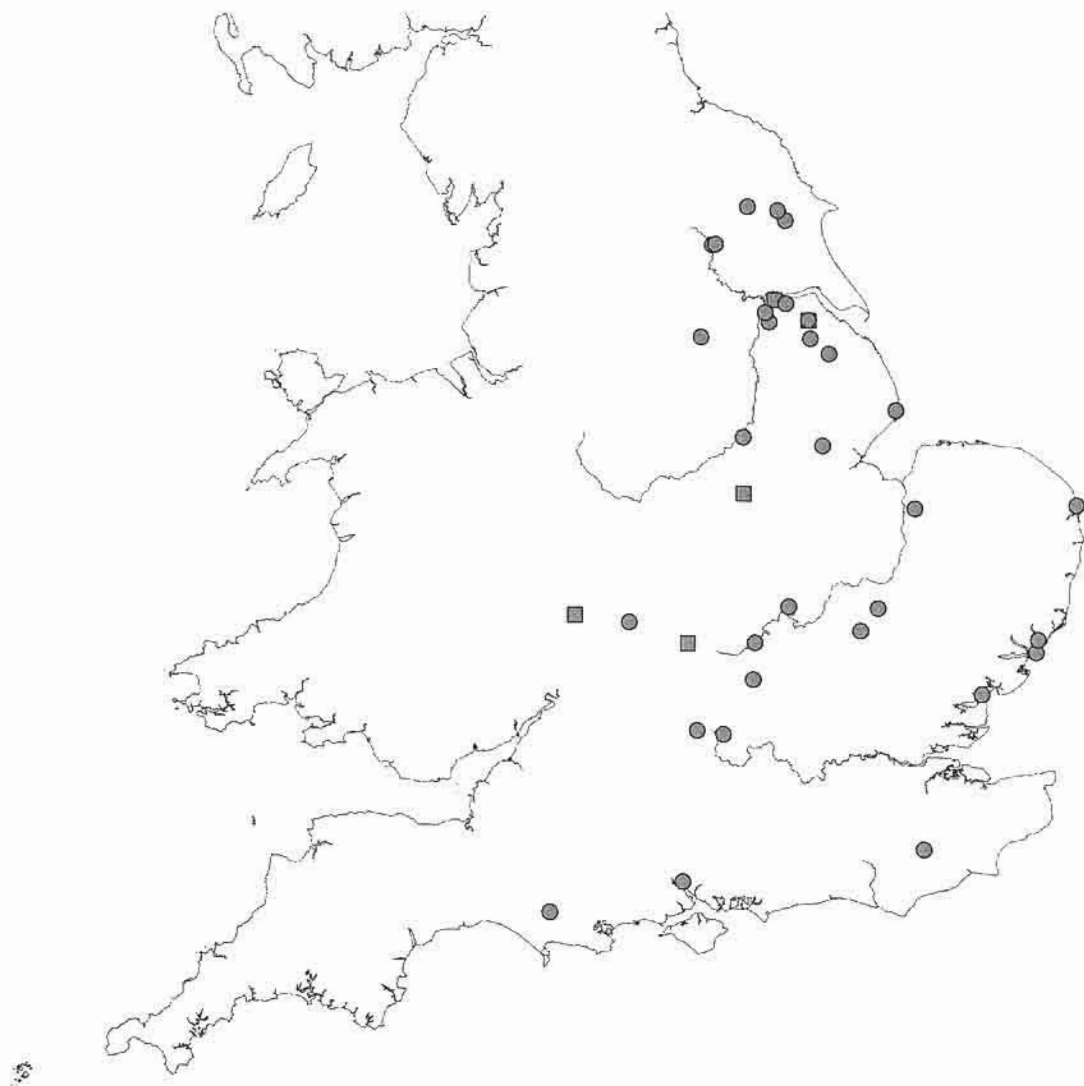


Fig. 2. The distribution of all finds of Type 37 in Britain. Likely imitations are represented by squares.

the line bounded by the Rivers Trent and Great Ouse. The outliers in the south-east represent very few finds, which as good as precludes mint attribution to these areas. Within the main focus, the central and southern Midlands exhibit relatively high proportions, although we should take note of the overall numbers of finds made there in comparison to Lincolnshire. The area including York is the only place north of the Humber which reliably produces a density above 0.25. The evidence from Lincolnshire would appear to be most compelling. Within Lincolnshire, there is a zone of highest density running parallel with the coast from the Humber to the edge of the fenland, roughly equating with the kingdom of Lindsey. Another region of high density lies within a central area bordering the eastern edge of the fens.

Regression analysis for individual types provides less certain results owing to the smaller number of finds. Type 37 (Fig. 6) certainly seems to fit into Lindsey, given that imitations are most prevalent in the southern Midlands, and the overall lower levels of finds north of the Humber. Type 85 (Fig. 7) again seems to home in on the Lindsey region. Type 36 (Fig. 8) is not particularly clear, but is only found with a reliable density in excess of 0.1 in the southern half of the Lincolnshire to the Wash region, with the exception of York. The high density seen in Cambridgeshire is a statistical anomaly relating to a single find in an otherwise blank area. The



Fig. 3. The distribution of all finds of Type 85 in Britain. Likely imitations are represented by squares.

small number of finds of Type 72 inspired little confidence, although it is strongest in the southern Midlands, but there were too few finds to undertake meaningful regression analysis. However, given that it is relatively well represented among the Domburg finds, a Low Countries attribution may be more appropriate, as argued elsewhere.²²

Overall, the combined analyses of finds distribution, finds concentration and regression analysis have highlighted certain patterns in the data. These all point towards an origin for Types 37 and 85 in the Lincolnshire/Lindsey region, with Type 36 also likely to be from this area. There are not yet enough finds of Type 72 for it to be evaluated satisfactorily. The concentration of finds in York is not matched elsewhere north of the Humber and can be explained on archaeological grounds, given the argument above. The excavations at Fishergate (York) showed that York had strong links with Lincolnshire. Around a quarter to a third of the pottery in each phase at the site is of a shell-tempered fabric with a Lincolnshire provenance, and as such must represent traffic from there moving northwards.²³ It is possibly indicative of the trade in salt, likely to have been an important

²² Op Den Velde and Klaassen 2004; Metcalf 1994, 355.

²³ Mainman 1993, 580–1.



Fig. 4. The distribution of all finds of Types 36 (square) and 72 (circular) in Britain. A likely imitation of Type 72 is represented by a hollow circle.

product from the Lincolnshire coast and fenland during the period.²⁴ It is not unreasonable to suggest that the relatively large numbers of Series J coins found in York are a result of this trade.

Nevertheless, the attribution of Series J to Lincolnshire is not without its problems. The incidence of the series at the region's most prolific pre-Viking sites, Flixborough (53 coins), South Lincolnshire (67 coins) and Torksey (44 coins), is surprisingly low. Only single finds of Series J have been found at Flixborough and South Lincolnshire, and none at Torksey, with continental intermediate phase sceattas dominating the contemporary assemblages (15 at Flixborough, 30 at South Lincolnshire, and 7 at Torksey), as they do across Lincolnshire. However, English secondary phase sceattas are not frequently found at any of these sites: one of five contemporary English coins at Flixborough, one of eight at South Lincolnshire, while all the sceattas at Torksey were of continental derivation. This may indicate that Series J's core area was more centrally located in Lincolnshire, or that its use was predominantly within the internal economy of the region. Alongside this, the possible area of origin approximately equates with the Anglo-Saxon kingdom of Lindsey, which was firmly within the political orbit of its powerful neighbour Mercia

²⁴ Naylor 2004a, 66; Sawyer 1998, 12–15.

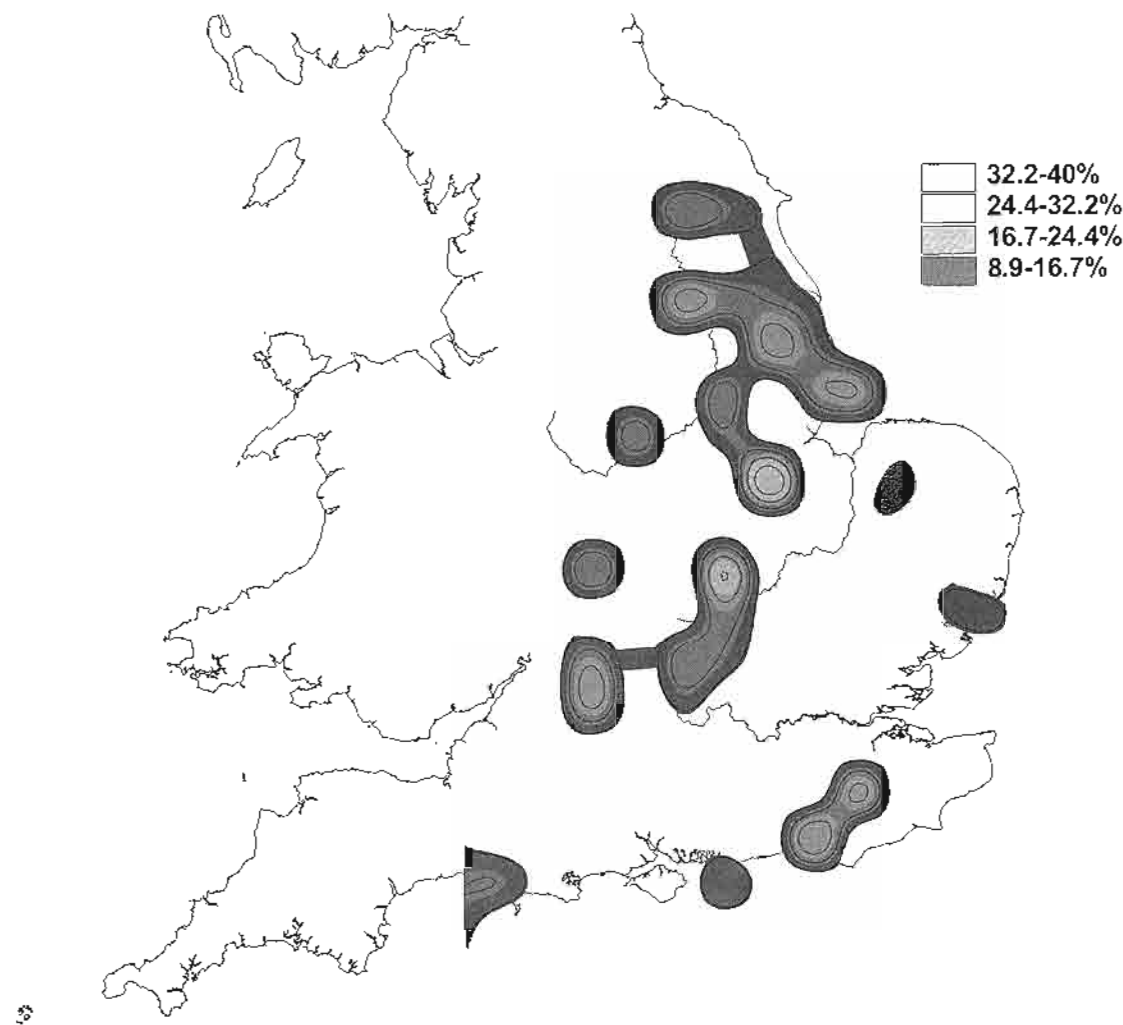


Fig. 5. Regression analysis for all finds of Series J. The contours are at intervals of ten per cent.

by the later seventh century, and this situation continued until the ninth-century Viking incursions.²⁵ The origins of the coinage must, therefore, be sought within the remit of Mercian hegemony in the early eighth century.

The chronology suggests that all types of Series J were minted during the period 710–25, although definition between types has not yet been achieved. Types 37 and 85 certainly appear contemporary, however, given their presence together in three separate hoards.²⁶ This places the coins within the reigns of the Mercian kings Ceolred (709–16), Ceolwald (716) and Æthelbald (716–57).²⁷ We know that during Æthelbald's reign the consolidation of Mercian power seems to have been such that surrounding kingdoms were absorbed into the Mercian realm.²⁸ Unfortunately, the documentary record remains almost totally silent on the reigns of Ceolred and Ceolwald, and little can be inferred, although it is most likely that Lindsey was under Mercian dominance throughout the period, losing any independence after the late seventh century.²⁹ The status of Lindsey's royal line is also unclear, and it probably disappeared at an early date.³⁰ It is

²⁵ Foot 1993, 129; Sawyer 1998.

²⁶ Metcalf 1994, 364: at Fishergate (York), a grave at Garion-on-the-Wolds (Yorkshire), and Föln (Jutland).

²⁷ Yorke 1990, 112–13.

²⁸ Yorke 1990.

²⁹ Foot 1993.

³⁰ Yorke 1990, 113.

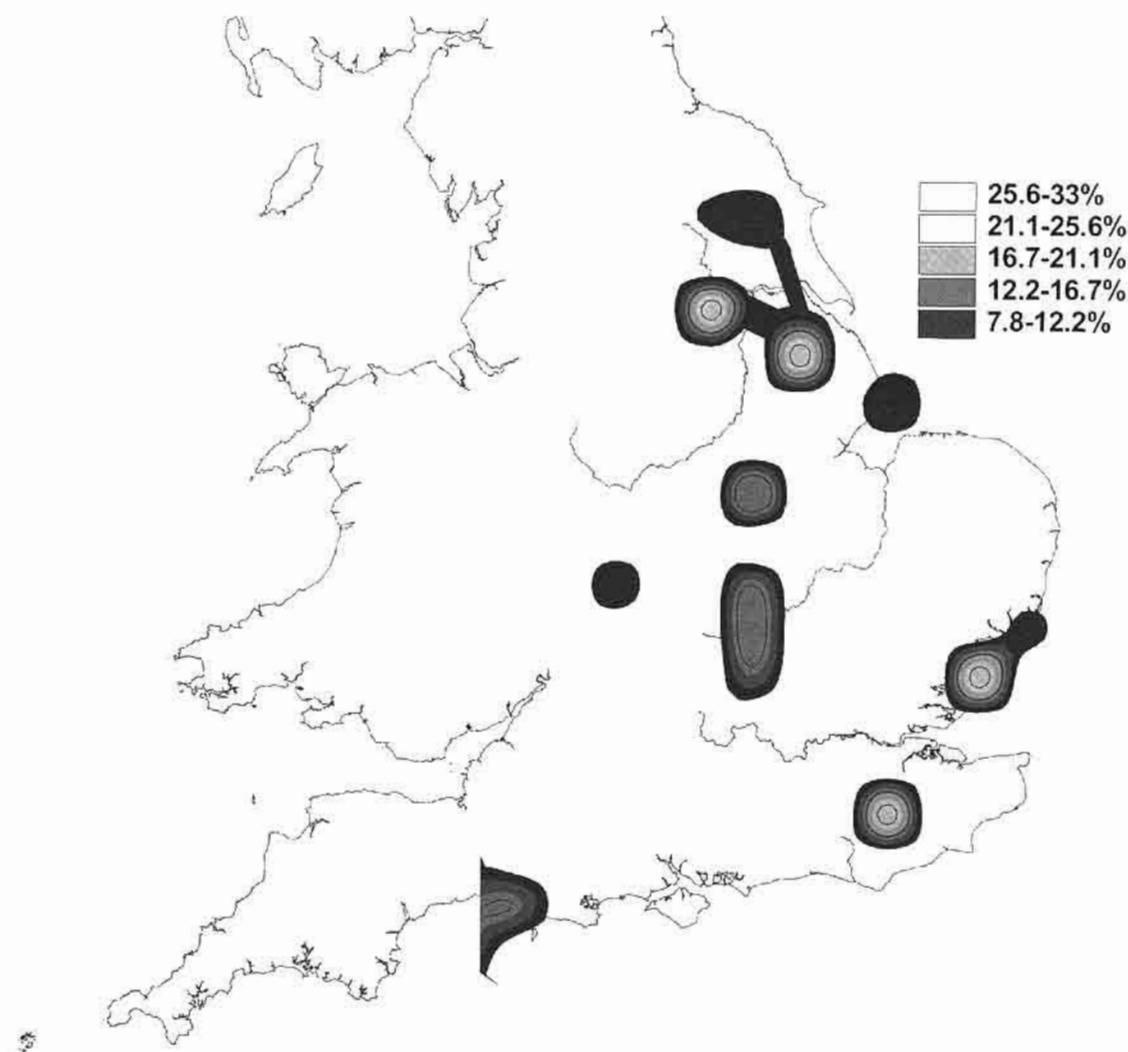


Fig. 6. Regression analysis for all finds of Type 37. The contours are at intervals of ten per cent.

credible, therefore, to expect that minting of coins and regulation of trade was firmly under the aegis of the Mercian overlords. If Mark Blackburn was right to assert that 'Lindsey was one of the wealthiest regions of England in the eighth and ninth centuries',³¹ then full economic control and regulation would no doubt have been a Mercian priority.

An interest in the regulation and exploitation of trade is known from Æthelbald's reign. The survival of charters relating to the remission of tolls for religious houses in Worcestershire and Kent at the ports in south-east England attests to the importance afforded to the proper regulation of economic activity.³² Although there are no such textual sources relating to Lincolnshire, the Rivers Humber and Trent would have been potentially important entry points for goods into Mercia via northern areas, with the Rivers Great Ouse and Witham or overland routes from the Wash and fens serving the same role in the south.³³ The regulation of trade in these areas would have been warranted, especially given the number of artefact-rich sites, including Flixborough, Quarrington and Riby Cross Roads, which illustrate the wealth of Anglo-Saxon Lincolnshire.³⁴

³¹ Blackburn 1993, 83.

³² Kelly 1992.

³³ Ulmschneider 2000, 54 fig. 1.

³⁴ Taylor 2003; Ulmschneider 2000, 63–72 and 55 fig. 2.

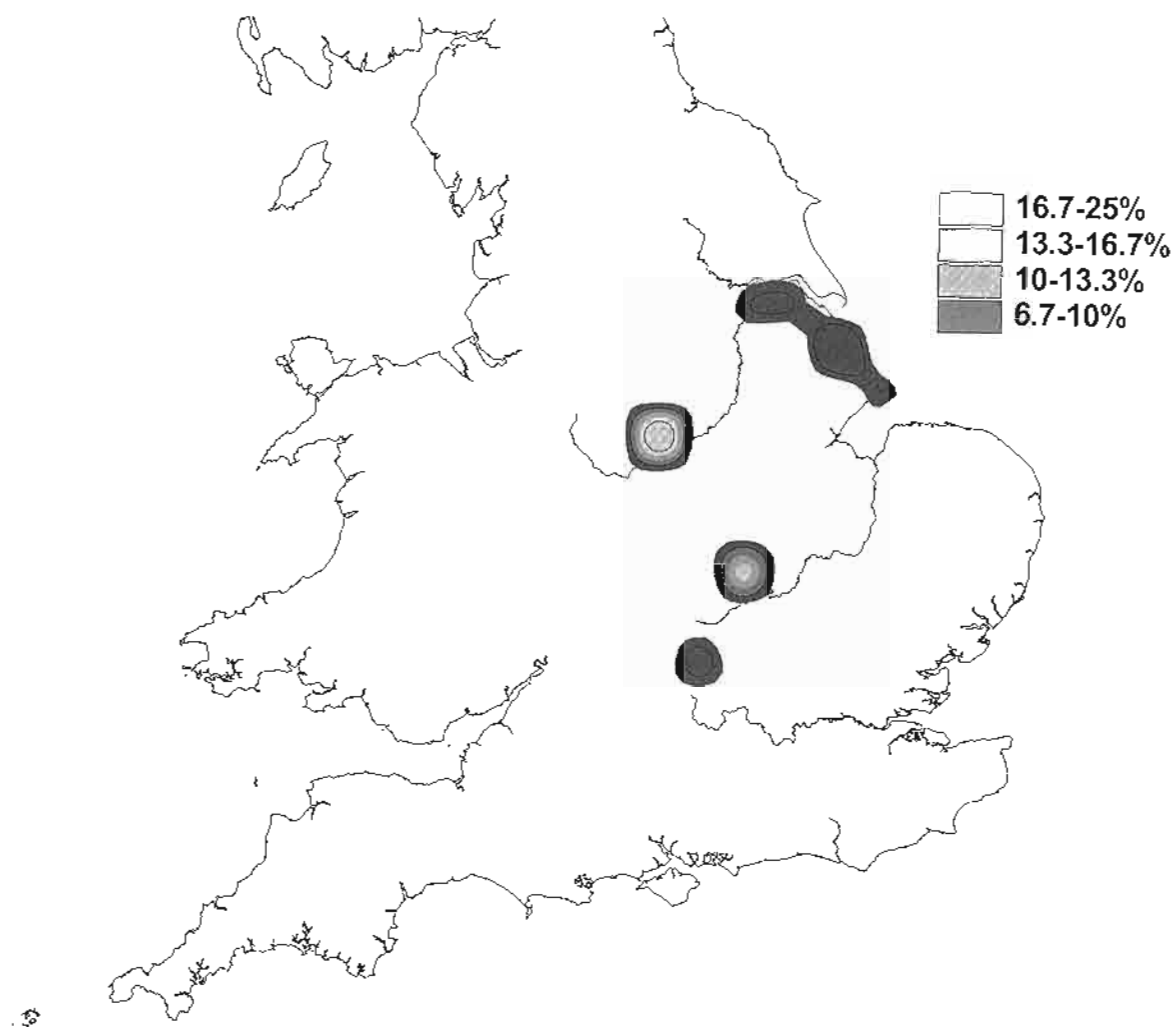


Fig. 7. Regression analysis for all finds of Type 85. The contours are at intervals of ten per cent.

The minting of coins here would not be out of place, and Lincolnshire is a rich source of early eighth-century coin finds.³⁵ Within such an environment local minting would be an important part of any strategy of economic control by the emergent Mercian state, with reminting of imported coin into local issue a useful source of revenue. The lack of a known urban centre or *wic* does not necessarily hinder such an interpretation, but more likely reflects different means of economic organisation.³⁶ In addition, the distribution pattern shown by Series J fits more comfortably into ideas regarding Mercian hegemony than a Northumbrian origin, and also provides a plausible reason for the high level of imitations. Metcalf suggested that the coins spread out from York to the south and into Mercia via rivers and roads.³⁷ However, given that the issues of kingdoms of similar status (Series R in East Anglia, Series H in Wessex, and the later Northumbrian issue, Series Y) are very much more restricted than Series J, placing the origins of the issue within the remits of Mercian hegemony would appear to be more appropriate than with a lesser authority such as Northumbria.

³⁵ As seen on the EMC (see above, n. 5).

³⁶ Naylor 2004a, 122–33; Naylor 2004b.

³⁷ Metcalf 1994, 341.

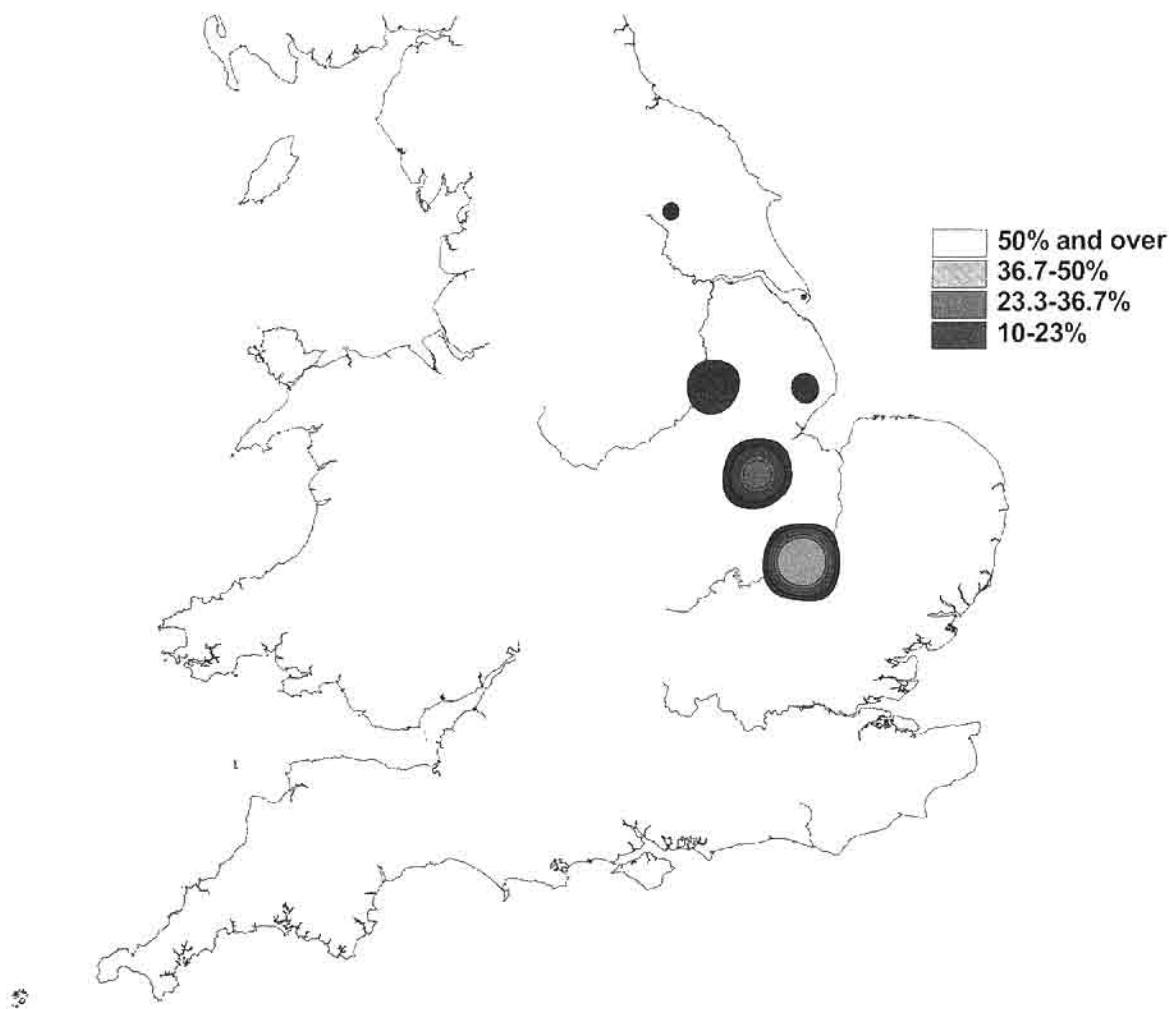


Fig. 8. Regression analysis for all finds of Type 36. The contours are at intervals of ten per cent.

If indeed the origins of Series J did lie in Mercian ambitions, what would have been Mercian interest in Lindsey? It may prove to be a combination of the region's location and its productive potential. Archaeological evidence from both north and south of the Humber, from sites including Beverley, Fishergate (York), Flixborough, and Riby Cross Roads, has shown that long-distance trade along the Humber corridor was active throughout the period.³⁸ The finds of coinage made along the Trent and the Great Ouse into the Mercian heartland attest to the region's potential importance to its neighbour and its economic significance in Mercian affairs. That such a link is rarely made may be due to a general bias in research towards Mercia's relationship with south-east England, especially London, owing to the city's importance, its steadily increasing levels of archaeological evidence and the survival of a number of documentary records.³⁹ There is no reason to suppose that some imports did not enter the Mercian heartlands via the Humber and Trent rather than through London and the Thames.

Lincolnshire's resources included two very valuable commodities: salt and wool. There are, of course, the famous salt pans at Droitwich (Worcestershire), of well-documented importance, and it is known that ownership of land at salt production sites was highly sought after.⁴⁰ The

³⁸ Armstrong, Tomlinson and Evans 1991; Kemp 1996; Loveluck 1998; Steedman 1994; Naylor 2004a, 24–82.

³⁹ Malcolm, Bowsher and Cowie 2003. For example, many of the papers relating to economic aspects in Brown and Farr 2001 are more concerned with Mercia's relationship with London and the south-east than with its other territories.

⁴⁰ Whitelock 1952, 115–16.

Lincolnshire fenland and coast have also been centres of salt production since at least the Iron Age. By Domesday, over 260 saltpans were documented in the county, and ancient saltways are known from the area.⁴¹ Although there is no certain evidence for eighth-century saltworking in Lincolnshire, the *longue durée* of the industry makes it unlikely that there was hiatus in production of such an important commodity in the post-Roman period. Another factor relating to the potential importance of Lincolnshire to Mercia is the possible status of Droitwich in the eighth century. The excavations at Upwich, the most important of the area's saltpans, showed that the mid-late seventh-century saltworking was covered by thick alluvium, deposited in a large number of episodes during the eighth century. This indicates that the river had become prone to major inundations during the period, and attempts were made to control its course with revetments built along the bank.⁴² Although we cannot be certain what effect this flooding had on overall salt production at Upwich, it may have resulted in the Mercian elite having to look elsewhere for adequate supplies, and Lincolnshire would provide an ideal candidate.

Wool and textile production was also becoming a major commodity in middle Saxon England. In areas such as Lincolnshire it was, by the later medieval period, one of their most important export materials.⁴³ Analyses of excavated sheep bones have indicated that there were changes on a number of sites across the country towards intensive rearing of sheep for surplus wool production.⁴⁴ Within Lincolnshire, this appears to be the situation at both Quarrington and Riby Cross Roads by the early eighth century, and large numbers of tools for textile manufacture were found at Flixborough, although whether large-scale production appears quite this early at the latter is uncertain.⁴⁵ However, that sheep rearing was an important part of Anglo-Saxon animal husbandry is unquestionable, with wool and textile manufacture an important part of the region's rural economy. Again, local minting would have aided in the exploitation of this activity through the payment of tolls on these goods as they were transported around the region.⁴⁶

There may, therefore, have been a keen interest in the exploitation of Lincolnshire by Mercian royalty for its natural resources (including salt), its potential regarding surplus production, and its easy links to the North Sea and networks of long-distance coastal trade. In such an environment, minting of coins in Lincolnshire is a likely outcome of the political and economic interest in and dominance over the kingdom of Lindsey. However, if the coins were minted in Lindsey itself it is not easy to suggest with any confidence a potential mint location. Archaeological evidence for Anglo-Saxon Lincoln supports Bede's assertion that there was an important ecclesiastical presence in the city, but there is scant information regarding secular or commercial activity and no reason to assume minting took place there.⁴⁷ Alternatively, it is entirely plausible that minting could take place in a rural location, most likely at a royal vill. By the late seventh/early eighth century a well-defined settlement hierarchy was developing across England, with royal estates and monasteries becoming important central places, and the minting of coins in such an environment is not out of the question.⁴⁸ Within Lincolnshire there are a number of excavated sites that could have fulfilled such a role, located on main routeways and exhibiting evidence for long-distance contacts, and economies based on surplus rather than subsistence production, including Flixborough and Riby Cross Roads in northern Lincolnshire and Quarrington further south.⁴⁹

To conclude, Types 36, 37 and 85 certainly appear to be attributable to northern or central Lincolnshire and as such can still be usefully grouped together. However, Type 60 remains of

⁴¹ Lane 2001, 154; Fenwick 2001; Sawyer 1998, 15; Ulmschneider 2000, 70.

⁴² Hurst and Hemmingsway 1997, 27–8.

⁴³ Ulmschneider 2000, 73.

⁴⁴ Crabtree 1996.

⁴⁵ Blinkhorn 1999, 14; Taylor 2003; Loveluck 1998, 156; Ulmschneider 2000, 67.

⁴⁶ The nature of toll payment in Middle-Saxon England is somewhat unclear owing to the general lack of documentary sources on the subject, although it is certain that tolls were levied (see, for example, Kelly 1992). Continental sources indicate that agricultural produce was one of the types of good on which tolls were levied (Wood 1994, 215–16).

⁴⁷ Stanc and Vince 1993.

⁴⁸ Moreland 2000; Naylor 2004a, 129–33.

⁴⁹ Ulmschneider 2000; Taylor 2003. I should point out that I am not necessarily advocating any of these sites as actual mint places, but they show that rural sites which may be interpreted as central places did exist in eighth-century Lindsey, and so the notion of minting at a royal vill in the region is not implausible.

unknown origin and Type 72 probably originated from the Low Countries.⁵⁰ As a result we should perhaps question whether these Types should still be included in Series J, which may need to be redefined as comprising only Types 36, 37 and 85. If so, the origins of Series J can be placed within the remit of a Mercian-dominated Lindsey on the combined grounds of geographical, historical and archaeological evidence.

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⁵⁰ Op Den Velde and Klaasen 2004.

COTTON'S ANGLO-SAXON COINS IN THE LIGHT OF THE PEIRESC INVENTORY OF 1606

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THE Anglo-Saxon coins belonging to Sir Robert Bruce Cotton were recorded by Nicolas Claude Fabri de Peiresc when he visited London in 1606. His inventory is preserved among numismatic notes on Cotton's and other European collections in two bound volumes now in the Rijksmuseum Meermanno-Westreenianum in The Hague, Netherlands.¹ The numismatic importance of this material was first recognised by Gay van der Meer, who planned to publish it in collaboration with Christopher Blunt and Michael Dolley. Some preparatory work was done in 1961, but other demands on the time of all three scholars made it impossible to complete the project. After the deaths of her colleagues, a paper by van der Meer in 1994 discussed the history and context of the manuscripts and made a general and numerical survey of Cotton's Anglo-Saxon collection based on this and other sources.² The publication of the individual coins remained outstanding and she recently invited the writer to undertake this part of the work. This task has been greatly facilitated by van der Meer's earlier research and a provisional table prepared by Blunt and Dolley in 1961.³ The data below has, however, been established from scratch, making use of additional manuscript material, information from fascicules of the Sylloge and important studies of specific periods of Anglo-Saxon coinage published during the intervening forty-five years. While the primary object of this paper is thus to make available the detail of the Cotton Anglo-Saxon coins recorded in the Peiresc volumes in The Hague, the opportunity has been taken to collate with it scattered earlier studies now in need of some revision, to produce a corpus of all the Anglo-Saxon coins at present believed to have been in Cotton's possession. So far as can be determined, the present location of the coins in public collections is given and recent references to them in published sources are cited. This evidence increases Cotton's known holding in the series from about 160 coins in 1954 to 204.⁴

Cotton and Peiresc

There is an extensive literature on both men, so only a brief outline noting the principal bibliographical publications is required here. Both took an active part in the public affairs of

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¹ Boeren 1979, 90–1, Mss. 10 C 30–31. Nicolas Claude Fabri de Peiresc (1580–1637), *Tomus I: De Nummis Graecorum, Romanorum et Judaeorum, Tractatus de Monetis, Catalogi Rerum Antiquarum* (paginae 1–716), *Tomus II: Nummi Gallici, Gothici, Italici, Britannici, Arabici et Turcici* (paginae 1–391). The ozalids of the relevant pages, whose copyright is retained by the Rijksmuseum, have been placed in the library of the Department of Coins and Medals, British Museum, where they may be consulted.

² Van der Meer 1997. This paper was reprinted in van der Meer 1994, from which references in this paper are cited. Dr van der Meer gave a paper on the same subject to the Royal Numismatic Society on 18 April 1989. The Peiresc manuscript has been cited in some volumes in the *SCBI* series after 1961, with the advice of Dr van der Meer and the then editors Christopher Blunt and Michael Dolley.

³ A copy of this table, now out of date in some respects, is also available in the British Museum.

⁴ The statistics quoted in this paper are based on the Corpus below and differ a little from those given in earlier papers. Van der Meer's total of 210 coins was based on the Blunt and Dolley table of 1961 which, for example, overlooked the *Ludica* (no. 35) but included coins from the Peiresc 'Londres' group here not accepted as Cotton's (see discussion below and Appendix).

their countries but it is as antiquaries, collectors and conservers of the records of their nations' past that they are primarily celebrated today. Robert Cotton (1571–1631)⁵ was educated at Westminster School, London, where one of his masters was the leading antiquary William Camden (1551–1623), and Jesus College, Cambridge, where he graduated in 1586. In celebration of his claimed descent from the Scottish royal family, he adopted the name Bruce around 1603, the year in which he was knighted by James I, the king of the newly united kingdom, and was created a baronet in 1611. He inherited family estates, mainly in Huntingdonshire around his country residence at Conington, and owned a succession of houses in London. When aged only fifteen he was one of the co-founders, with Camden and others, of the short-lived Elizabethan Society of Antiquaries⁶ and assembled an outstanding library of manuscripts, books, coins and selected antiquities mainly illustrative of England's history. While he owned coins of the Celtic, Roman and other series, it was his choice Anglo-Saxon cabinet which then as now was regarded as the most significant. He maintained friendly contact with leading contemporary collectors and scholars at home and abroad, generously making his material available to them for study at his houses and on loan. Cotton had intended that his collections should ultimately pass to the nation and after the death of his grandson Sir John Cotton in 1702 these wishes were fulfilled. The public authorities did not immediately ensure their proper curation and after several moves, and some depredation in all areas, including the particularly vulnerable coins, it was decided in 1753 that they should be incorporated with those of Sir Hans Sloane (1660–1753) and others to form the foundation collection of the British Museum. When the Cotton material was inspected prior to its removal to the museum in 1756 the coins were found to be 'in a most confused state'.⁷ The surviving English coins were not counted separately on that occasion but along with others from unspecified series (probably Roman issues for the most part) numbered 352 pieces in a grand total, including seals and other numismatic material, of 549 items.

Among the overseas antiquaries with whom Cotton corresponded was the eminent French scholar Nicolas Claude Fabri de Peiresc (1580–1637).⁸ He inherited extensive properties in Provence, but, while generally based at his estate in Belgentier near Aix, he lived mainly in Paris between 1616 and 1623 and travelled widely in his youth, pursuing his many academic interests. Prominent among these was numismatics and between acquiring his first coin at the age of fifteen and his death he had amassed just under 18,000 coins, many of which eventually reached the French national collection. Although the majority of his coins were classical, his unusually extensive holdings in the medieval series were, for his time, particularly noteworthy. He came to London for a month in the summer of 1606 and visited Cotton's library where he recorded the Anglo-Saxon coins, and the two antiquaries continued to exchange letters, material and gifts until their correspondence ceased in 1622.⁹ The major part of Peiresc's immense surviving archive is housed in the Bibliothèque d'Inguibert at Carpentras, also near Aix, in volumes of his papers kept by him in packets and bound together shortly after his death. Volume LV in the main series, primarily concerned with coins, became separated from the rest and is represented by the two books (in the bindings of a later owner) now in The Hague, on which the present paper is principally based.¹⁰

⁵ No full biography of Cotton exists, but see: Smith 1696; Sharpe 1979; Tite 1984; Wright 1997. For his coin collection: Dolley 1954; Dolley and Strudwick 1954; Dolley and Strudwick 1955–7; Hunter 1975; Sturdy 1983; Pagan 1987. Further relevant papers on specific points are mentioned in later footnotes. A portrait of Cotton is illustrated in van der Meer 1994, 216.

⁶ Van Norden 1946. The College (or Society as it is now generally referred to) existed between 1586 and 1607 or 1608 and was at its most active in 1596–1601 (van Norden 1946, 222). The author notes that Cotton (and others named) 'seem to have been more active in the late than in the earlier years' (van Norden 1946, 264).

⁷ Prescott 1997, 437.

⁸ Rand 1657 (a translation of the original Latin biography by Pierre Gassendi, Paris 1641, The Hague 1651² and 1655³); Humbert 1933; van Norden 1948–49. Sturdy 1983 and van der Meer 1994 give useful summaries of Peiresc's life, English connections and the history of his archive. A portrait of Peiresc is illustrated in van der Meer 1994, 220.

⁹ The rift has been attributed to the failure of Peiresc to return one of Cotton's books, but the book was returned in 1622 and Sharpe (1979, 96–7), suggests that the more likely causes were Camden's death in 1623 and resumption of war between their two countries.

¹⁰ Van der Meer 1994 and Sturdy 1983. The binding of the second volume in The Hague is illustrated in van der Meer 1994, 223.

Anglo-Saxon coins in the Peirese volumes in The Hague

Van der Meer has already discussed the two Peirese volumes and the entries which relate to Cotton's Anglo-Saxon collection in her 1994 paper, but the evidence to set the corpus in context is presented here with a slightly different emphasis. The Hague volumes record 181 Anglo-Saxon coins in remarkable detail: one in volume I and 180 in volume II. One hundred and sixty-five coins are identified as Cotton's by headings at various points throughout volume II, two more almost certainly belong to him, and there are eleven coins (including the sole coin in volume I) for which no connection with Cotton can be established.¹¹ Legends are set out in full although the liberal use of dittoes for obverses in particular can sometimes lead to uncertainties. Letter forms are generally carefully transcribed but the recording of initial crosses and punctuation is not consistent and it is not always clear whether punctuation in the manuscript transcribes stops on the coins or is the writers' way of marking the division between words or the end of a line. Where punctuation is considered to be certainly the latter, it is not reproduced in the Corpus but if there is any doubt it is fully transcribed. The legends are transcribed as nearly as possible as they appear in the manuscript. Spaces are usually, but not always, left between the words of the legends in the manuscript but are set out uniformly with spaces in the Corpus, except in the case of words joined by ligatured letters. The entries display occasional transparent misinterpretations of individual letters and a small number of obvious errors which may be safely discounted without comment, but a few less explicable and possibly more significant ambiguities remain and are noted in the Corpus. The types on both sides are usually briefly described in Latin, supplemented in some cases and replaced in others by stylistically accurate drawings of the main feature of the reverse, and less often obverse, designs. The manuscripts do not identify mints or moneyers and weights and findspots (with one exception, no. 15), are not recorded. The coin numbers quoted throughout this commentary refer to those in the Corpus unless stated otherwise.

The great majority of the Cotton Anglo-Saxon coins in Peirese volume II feature in two lists. The longer on pp. 255–68 in Peirese's hand is headed by a note stating that the coins listed were made available to him at Cotton's house in London (Pl. 26) and, although undated, external evidence establishes that this visit took place in the summer of 1606.¹² This list (henceforth referred to as the 'Peirese inventory') describes without running numbers 158 coins under kingdoms and rulers, with marginal comments by Peirese in Latin and French. The attributions to kings whose names appear only once in the historical record are correct, but in cases where a name occurs more often, or not at all, the entries are less reliable and regnal dates often require correction in line with current thinking. In the Corpus the coins are identified, listed and dated according to modern scholarship and misattributions by Peirese (other than minor differences in regnal years) are noted.¹³

The second list is bound into vol. II, pp. 247–50, and has similar Latin descriptions but fewer drawings and occasional marginal remarks in English. It is in a different hand but is headed with a note written by Peirese saying, in Latin, that it was made by Master Tate from the collection of ancient Anglo-Saxon coins at the London house of Sir Robert Cotton.¹⁴ No indication is given of when and how Peirese obtained it. This list (henceforth referred to as the 'Tate list') is in alphabetical order of rulers' names with no attributions made to specific kingdoms and breaks off at his no. 142, in the middle of describing a fourth coin of Harold I. A number of coins without numbers are shoehorned into the list or, like two coins of Plegmund, added in the upper margin. Another version of the Tate list survives among the Cotton papers in the British Library.¹⁵ It is

¹¹ Three coins whose independent existence is doubtful are excluded from the Cotton totals: a Beorhtic and two coins of Edward the Elder which are either ditto-graphies or had apparently left the collection by 1606, possibly disposed of as duplicates (see Appendix, nos viii–x).

¹² Sturdy 1983, 225, quoting Carpentras MSS 1809 ff. 245, 288 and 435. Page 266 of the Peirese inventory in The Hague, listing coins of Edward the Elder and Athelstan, is illustrated in van der Meer 1994, 229.

¹³ Errors in other early sources are not noted in the Corpus unless they are material to the discussion.

¹⁴ Francis Tate (1560–1616), barrister and Member of Parliament, was one of Cotton's friends and a co-founder and secretary of the Elizabethan Society of Antiquaries (van Norden 1946, 142–50). He was a particularly active scholar, many of whose draft discourses for the Antiquaries survive, including the one given on 27 November 1590 entitled 'The Antiquity of the Word Sterlingorum or Sterling'. The first page of Tate's list with the heading by Peirese is illustrated in van der Meer 1994, 226.

¹⁵ Cotton MS Titus B VI, ff. 245r–246v discussed in van der Meer 1994, 227–8.

also in Tate's hand, but less carefully written, and the contents are closely similar, complete with insertions and unnumbered coins. Both lists break off at the same point, with the numbers continuing (with no details of coins) to 151 in the Cotton manuscript, but only to 145 in the Peirese manuscript probably because its lower edge has been cut off during the binding process. There are indications, including additional errors, that the Peirese version is the later of the two. Why the list was not completed is not known.

The Peirese inventory and the Tate list record substantially the same coins but differing readings and errors, among other details, demonstrate that they are independent of one another, each antiquary reading the coins for himself and not copying some pre-existing descriptions by Cotton. There is no direct evidence for which list came first, but van der Meer argued that the Tate list was probably the earlier and that is accepted here. One hundred and forty coins feature in both, seven appear only in Tate and eighteen only in Peirese. The excess in Peirese is inflated because the Tate list is incomplete. Three coins of Harold I Jewel Cross type were the final fully identified coins on Tate's list, but it is probable that eight other coins of the same reign, which look like a parcel from a hoard and appear only in the Peirese inventory, were already in Cotton's collection when Tate was writing. The six coins of Offa present in the Peirese inventory may also have been owned by Cotton when Tate was compiling his list and broke off before he had reached the letter 'O' (but see the discussion of the Carpentras manuscript, p. 176, below). Thus the number of coins added to the collection between the Tate list and the Peirese inventory is reduced to ten, or possibly just four. The reason why seven coins in Tate were not recorded by Peirese is unknown, but five of them do not appear again in Cotton's collection. Apart from the possibility of coins having been stolen, misplaced or out on loan, it is possible that some had been disposed of as duplicates in line with Cotton's collecting practice.¹⁶ As the Peirese inventory is more complete and the detail and transcriptions of legends generally fuller and, as far as can be judged, usually (but not always) more accurate than those of the Tate list, the former is the source from which the legends given in the Corpus have been transcribed unless otherwise stated. Material differences in the legends given in the two lists for what is considered to be the same coin are also noted.

In addition to the two main listings, a number of Anglo-Saxon coins are described elsewhere in The Hague volumes, all undated and without mention of an owner. They are in Peirese's hand and the question is whether any of them were when he wrote, or later became, part of Cotton's collection. On p. 69 of volume II is an unheaded list of three coins,¹⁷ a penny of Offa by the moneyer Eoba (no. 15), another of Offa with Bishop Eadberht (no. 21), and a penny of Beorhtric of Wessex (see at no. 76), none of which feature in the Peirese or Tate lists. As van der Meer has pointed out, they are almost certainly the three coins mentioned in Peirese's letter to Cotton of 4 July 1618 dealing also with Roman coins and casts which he is sending to his English friend as a present. Peirese writes 'Les monoyes d'Offa et de Beorhtricus, je les ay tant demandées qu'enfin ...' but tantalisingly no more of the sentence survives as the page has been damaged.¹⁸ What is probably the first record in Peirese's notes of the Offa/Eoba penny, with a drawing of the reverse type, is on p. 101 where it is the lone Anglo-Saxon coin in a list of gold and silver Merovingian and Carolingian coins from an unidentified collection, probably French. It is found for a third time (with a marginal note that it was found near Narbonne) on p. 271 which is headed *SAXONICA SIGILLA ad D. Robertum Cottonum*.¹⁹ This abnormal third entry on a page of other material sent to Cotton would appear to suggest that Peirese had arranged for the Offa/Eoba found in France and originally in a French collection to be acquired by Cotton, perhaps, on a favourable interpretation of the 'enfin' in the letter, after protracted negotiations in 1618. The Offa/Eadberht (no. 21) is neither noted elsewhere in the Peirese volumes, nor is such a coin illustrated in Speed, but a coin of the same type in the British Museum is certainly the one illustrated in 1744 in the West collection which included many Cotton coins (see below, p. 182–3). While proof is lacking, there seems to be enough evidence to link these two coins with the Cotton collection so they are included in the Corpus below.

¹⁶ See 'Curation of the collection' below, pp. 179–80.

¹⁷ This page is illustrated in van der Meer 1994, 232.

¹⁸ Cotton MS Julius C. III, f. 211, van der Meer 1994, 233.

¹⁹ Peirese was sending Cotton reproductions of the impressions of ancient gems attached to spurious charters of Offa and Edgar in the archives of the Abbey of St Denis. Paris; see Birch 1887, I, nos 1 and 3.

The case of the Beorhtric is particularly difficult to sort out. Peiresc did not note such a coin in the collection in 1606, but Cotton had apparently acquired an example of this exceptionally rare reign, type and moneyer by 1611 for one is illustrated in Speed, whose Anglo-Saxon coin illustrations were sourced from Cotton's collection.²⁰ The Speed coin, if accurately represented, cannot now be traced. The coin mentioned in the 1618 letter must be a different specimen and the coin Speed published in 1611 does indeed differ in some significant respects from the coin described in Peiresc but, curious as it may seem, no coin precisely matching this second coin either is known today.²¹ Whether Cotton had two Beorhtrics or just one, and in that case which, is not capable of proof on present evidence. No coin of Beorhtric survived in the collection to be included in the Pegge inventory of 1748. The Speed coin is included in the Corpus (no. 75) where the Peiresc specimen is cross-referenced to its listing at Appendix, viii.

Ten Anglo-Saxon coins appear in volume II, p. 120, in a list of seventeen miscellaneous medieval coins from the British Isles and one of the Carolingian ruler Pepin of Melle, all bracketed together 'Londres'. The place-name in itself does not identify the coins as Cotton's for there were other collectors in London at the time, some of whom were also visited by Peiresc in 1606.²² His explicit acknowledgement of Cotton as the source of coins elsewhere would also tend to support the view that the location 'Londres' is an unlikely designation for coins from the latter's collection. Some of the coins are described in Peiresc's usual detailed manner, but others are represented by their obverse legends (some not even complete), with reverses denoted merely by lines of dots. The scrappy nature of most of the entries on this page suggests that the coins were probably pieces Peiresc had either seen only briefly, was recording from memory or had just been told about in the hands of other collectors when he visited London, and which he later grouped together in fair copy, transcribing from miscellaneous notes with differing amounts of detail made on the spot. Only six of the Anglo-Saxon coins are described closely enough to be fully identifiable and there is no external evidence associating any of them with Cotton. Several are apparent duplicates of coins already in Cotton's collection and this, while not conclusive in itself, is another pointer to this group being unlikely as a part of it.

The final Anglo-Saxon coin noted by Peiresc is the only one to appear in volume I, a penny of Offa by the moneyer Alred (Æthelred) on p. 352. It is entered between coins of Zeno and Tacitus on a page otherwise devoted to Roman and Byzantine issues with no indication of source. It is of Blunt type 48, of which that writer had noted only one example, *BMA* no. 16, acquired by the British Museum in 1895 from the Montagu sale, whose catalogue records that it had been purchased at the Vicomte de Ponton sale in Paris in 1890. A French source nearly three centuries after Peiresc's time need not in itself be significant, and a French collector could have chosen to add one of Offa's attractive pennies to his collection, but the coin is odd-man-out in a sale mainly of Merovingian coins, suggesting that it may represent the survival of another casual French find which had remained there until the nineteenth century. There is no evidence that it ever belonged to Cotton. Equally, there is no evidence that the Ponton specimen was the coin Peiresc noted, for the latter could simply have disappeared, but its context and the fact that it is the only known specimen go some way to supporting the identity.

The Peiresc volumes in The Hague thus include a total of 167 Anglo-Saxon coins which are believed to have been in the Cotton collection and are listed in the Corpus. It is also important that all 181 Anglo-Saxon coins in the Peiresc volumes are published together to put them on record and also to allow students to make their own judgements about the unsourced coins and reconsider their status in the light of any new evidence available in the future. The eleven coins which are not considered to have been part of the Cotton collection are listed in the Appendix, given Roman numbers and cross-referenced at their appropriate chronological place in the Cotton corpus. Three additional entries not included in the totals or statistics because their independent identity is doubtful are also included in the Appendix, and similarly cross referenced.

²⁰ Speed's words are somewhat ambiguous in referring to the Cotton collection 'from whence the chiefest garnishments of this worke have been enlarged and brought ...'. Harvey and Harvey 2003, 178 and 186, accept that all the Speed coins came from Cotton; they provide a guide to the complex publication history of early printed books on English numismatics and their illustrations.

²¹ Blunt 1958, 129–31. See also discussion at no. 75 in the Corpus.

²² Sturdy 1983, 225.

Growth of the collection

Other manuscript and early printed sources for Cotton's Anglo-Saxon coins have already been discussed by Dolley and Strudwick, van der Meer and Pagan,²³ and are reviewed here in the context of the growth of the collection. It is not known when Cotton acquired his first Anglo-Saxon coin but his collecting of books and manuscripts began about 1588.²⁴ He had been a founder member of the Society of Antiquaries in 1586 but no discourse by him there is on record before 1598–9.²⁵ When his former schoolmaster and friend William Camden illustrated coins for the first time in the third edition of his *Britannia* in 1590, the single plate of British Iron Age coins was sourced not from Cotton but from Robert Aske.²⁶ In the next edition of 1600 the increased number of plates of Iron Age and Roman coins (the only series illustrated) were said to be taken from coins owned by Cotton. Camden's comment on that occasion, that Cotton 'hath begunne a famous cabinet whence of his singular courtesie he hath often times given me great light in these darksome obscurities', suggests that his serious collecting of coins had started some time at least before 1600, the date of his influential journey with Camden to Carlisle and the Roman wall. The Peiresc and Tate lists of the fully fledged collection, compiled between about 1600 and 1606, are thus the earliest evidence of Cotton having owned any Anglo-Saxon coins, which by the later date numbered 165 pieces. There is no other known complete inventory of Cotton's collection during the rest of his life, and indeed none until that of Pegge in 1748.²⁷ Other information about additions to the collection after 1606 is dependent upon incidental mentions of a few coins and the choices made for illustration in numismatic plates, whose draughtsmanship is notoriously unreliable.

The Carpentras Peiresc manuscript, with accurate drawings by Peiresc's brother Palamède Fabri de Vallavez, records five Cotton coins (nos 7, 14, 16, 19, 33) seen on his visit to London in 1608.²⁸ Four (Cuthred, no. 7, and Offa, nos 14, 16, 19) are already in the 1606 inventory, only one (Beornwulf, no. 33) being a more recent addition. The coins may none the less have been drawn to the young man's attention because Cotton thought that they were important coins that Peiresc may not have seen. There could be several reasons for this belief, but it may have been because they had been acquired not long before that date. The Cuthred is in the Tate list but the three Offas are not. They, and the three other Offas not included in the Carpentras list, could simply have been omitted as has been suggested, but they might have been acquired after the Tate list was compiled, Cotton really having only the Cynethryth from Offa's reign at that time.

In 1611 Cotton's collection was the source of Anglo-Saxon coins used to illustrate John Speed's *History of Great Britaine*.²⁹ These woodcuts are of great importance as the first images of the Cotton Anglo-Saxon coins, apart from the Carpentras drawings. Overlooking errors in Speed's drawings and slips in Peiresc's and Tate's transcriptions, it is possible to match the Speed illustrations with coins already recorded in the Peiresc lists, with the exception of four (nos 3, 13, 68, 75) presumably acquired since 1606. None of the four are recorded later by Pegge in 1748, but no. 13 is the Pendraed gold *mancus* struck during Offa's reign but misattributed in Speed to the Welsh prince Uter Pendragon, which was certainly Cotton's.³⁰ In 1617 Cotton compiled a draft catalogue of selected coins from his collection with cuttings from Speed in places, but it adds no further coins to those recorded before that date.³¹ Two coins were probably added to the collection

²³ Dolley 1954; Dolley and Strudwick 1954 and 1955–7; van der Meer 1993; Pagan 1987.

²⁴ Tite 1984, 28.

²⁵ Van Norden 1946, 264.

²⁶ Little is known of Robert Aske. He was probably the goldsmith who flourished 1561–83 (Heal 1972, 97). Harvey and Harvey 2003, 177, suggested that Cotton had purchased Aske's collection of British Iron Age coins.

²⁷ Manuscript inventory (now in a bound volume in the Department of Coins and Medals, British Museum) prepared by the Rev. Samuel Pegge (1704–96) following his study of the Cotton Anglo-Saxon coins in Westminster School in 1747 and prefaced by a letter to David Casley, then Librarian of the Cotton collection, dated 13 February 1748.

²⁸ Sturdy 1983, which reproduces the drawings. The spelling 'Vallavez' above follows van der Meer (1994); Sturdy has the form 'Velavez'.

²⁹ Speed, see n. 20 above.

³⁰ Blunt and Dolley 1968; Tite 1992.

³¹ This catalogue entitled *Numismatum Impp. Romanorum Regum Britonum Saxonum et Anglorum a Iulio Cesare ad Iacobum Magnae Britanniae quae in Bibliotheca Cottoniana Extant Exemplaria. 1617* (BL Harleian MS 254) has yet to be edited. It was used by Blunt and Dolley 1968, 152 (no reference), and was outlined and discussed by Tite 1992, 178–80.

with Peiresc's help in 1618 (nos 15, 21, but see commentary at no. 75 and Appendix, viii). In Speed's second edition of 1623 the illustrations are the same as before, except that the Æthelwulf of Wessex (no. 79) is omitted and another coin not represented in the Peiresc lists is added, a Ludica of Mercia (no. 35), presumably an acquisition between 1611 and 1623. This coin does not appear in Pegge's 1748 inventory, but its appearance in West's collection in 1744 along with many other coins almost certainly from Cotton's collection strongly supports that provenance. Speed's plates thus illustrate in aggregate 31 Anglo-Saxon coins from Cotton's collection and three others which are not proven to have been his but probably were, making 34 in all.³² Between 1606 and 1623 only eight coins are thus known to have been added to the collection, but this is a minimum figure as, in the absence of an inventory, the full increase during those years is unknown. The total of recorded coins by 1623 was therefore 173. There is no contemporary information about any additions made to the collection during the eight remaining years of Cotton's life. Coins are said to have been among the items added to Cotton's collection after his death, but it is not known whether they included any Anglo-Saxon pieces.³³ This must be kept in mind but, in the absence of evidence to the contrary, the assumption is made in what follows that all the coins in the Corpus were acquired in Cotton's lifetime.

During the next hundred years Cotton's coins were used as illustrations in a number of publications which provide useful, if not always reliable, images but do not add to the number of coins known from earlier evidence. An early example is the plate of careful woodcut engravings of coins and medals of the British Isles prepared for Sir Simonds D'Ewes in 1649. The sources of the coins are not identified on the plate, but at least nineteen (noted in the Corpus) were Cotton's.³⁴ The Cotton specimens included among other Anglo-Saxon coins illustrated in Gibson's 1695 edition of William Camden's *Britannia* are simply copied from the plates in Speed. Andrew Fountaine selected Anglo-Saxon coins directly from the Cotton collection for illustration in his *Numismata* published in 1704, so his engravings provide useful independent, if still inaccurate, visual evidence. He too included coins from elsewhere but, as the owners of the individual coins are not identified, the Cotton coins among them can be distinguished only by matching them with known Cotton coins illustrated or described in other sources. The Fountaine plates cited in the Corpus must therefore be regarded as probable rather than certain identities. Further Cotton coins may have been included but, if so, they cannot be identified, so the Fountaine plates do not provide any additions to the total. None of these early works record the weights of the coins.

The next first-hand evidence for Cotton's Anglo-Saxon coins appears in 1748 with the inventory made by the Rev. Samuel Pegge.³⁵ Pegge weighed some but not all of the coins. This inventory was probably undertaken because it had become clear that there had been serious losses to the collection by theft. Pegge remarked that fifteen out of the 34 coins illustrated by Speed were missing, a loss of about 44%. After the coins were transferred to the British Museum at Montagu House in 1756, the first curator of the coin collection there, the Rev. Andrew Gifford (1700–84), incorporated the Cotton coins and annotated the Pegge inventory to that effect. He could not trace nine of the 127 coins seen by Pegge, but was able to add a further thirteen Cotton coins to the

³² In each edition of his *History* Speed includes images of 35 'Anglo-Saxon' coins. Two of the images are of the same coin (Eanred, no. 4 in the Corpus below), and one is of a Frisian coin of Audulfus (Prou 1130) excluded from this study as it is not Anglo-Saxon. Thus in each edition of Speed 33 Anglo-Saxon coins are illustrated. However, as he illustrates one coin in the first edition which is replaced by another in subsequent editions, the aggregate figure for Anglo-Saxon coins illustrated in Speed is 34.

³³ '... and amongst our most Eminently Learned Antiquaries Sir Robert Cotton grandfather to the present Sir John Cotton who persistently in the steps of that Illustrious Person, is still augmenting the unvaluable Treasure of Medals and Manuscripts obliging the Learned World by his Generous Communication of what has been so left and so improved by him': Evelyn 1697, 245.

³⁴ This plate, pasted into a volume in the National Library of Ireland (MS 8390(4)) which had belonged to the Earls of Wicklow, was discovered by Michael Dolley in 1967. Hugh Pagan discussed it in his Presidential Address, 1987 (Pagan 1987, 176) and I am grateful to him for sending me his photocopy of the plate and notes on its background.

³⁵ See n. 27. This manuscript was the basis of Dolley and Strudwick 1954, which contains a number of errors, for example several coins in *BMC* identified as Cotton coins are in fact from early nineteenth century hoards. Some of these misidentifications were corrected by Dolley and Strudwick 1955–7, a paper on the sources of coins in *BMC*. A number of additions and modifications to the latter appeared in Martin (formerly Strudwick) 1961, 237–40. Further corrections have been made more recently by authors of specialist articles.

1748 inventory.³⁶ Out of a total of 138 coins recorded by Pegge and Gifford, 107 had already been listed by Peiresc in 1606. The 31 coins known to have been added to the collection between 1606 and Cotton's death in 1631 are, however, just the residue of the acquisitions made during that period after some had been stolen. Accessions appear to have been made from a hoard covering the reigns of Athelstan and Edred. It is not possible to calculate from the post-1606 survivors the total number of coins in the collection with any degree of accuracy because the profile of the later accessions was different from that of the earlier ones. What can be said, even allowing for the likelihood of greater percentage losses among the later accessions (see 'Losses from the collection', below), is that the additions to the collection made during the last 25 years of Cotton's life were not as numerous as they had been in the period before 1606. Recalling that there had been only a small increase between the Tate and Peiresc lists, it is likely that the *terminus ante quem* for the main acquisitions may be brought back before 1606, probably to a date sometime during the first five years of the seventeenth century. Later published works such as Pegge (1772) and Ruding (1817–40, but incorporating some earlier plates), whose full bibliographical details are given in the Corpus, do not add to the total of the known Cotton coins and so are not quoted systematically there, but they are useful in other ways and are quoted in the commentaries to the entries as required.

Sources of the Cotton collection

The evidence for the sources of the collection is limited and almost entirely internal. As noted above, only one coin likely to have been in Cotton's collection has a findspot and that was in France (no. 15 and cf. no. 16). Dolley pointed out the presence within the collection of groups of coins which suggested acquisitions from several unrecorded hoards, and van der Meer that these are confirmed by the larger corpus now available.³⁷ These need only be briefly mentioned here. The large cross-section of Edward the Elder's issues, including a wealth of the pictorial types, suggests a large hoard from north-west Mercia probably extending just into Athelstan's reign, and possibly other finds from the same general period.³⁸ An important group of ninth-century coins from East Anglia is evidence of a hoard from that area, and the significant group of coins of Harold I suggests a hoard possibly from the east or north-east midlands. The plentiful representatives of the late Saxon types ending abruptly in the Facing Bust/Small Cross type, with coins of Pyramid and Harold II entirely absent, suggest their derivation from a hoard closing before the end of the reign of Edward the Confessor, but whose non-recovery, like the similar find from Sedlescombe (1876), may be associated with the Saxon defeat at Hastings in 1066.

Other less distinct groupings hint at further hoard sources and this aspect of the fuller corpus would repay more detailed analysis. It cannot be assumed, however, that all coins of the reigns represented in these putative hoards originated in them, for isolated finds are no doubt also included and some may be distinguishable by differences in patina even after four centuries. There are virtually no duplicates in the collection, which suggests that Cotton did not acquire or retain all the coins from a hoard and collected essentially on a one-of-each basis. While the profiles of some of the source hoards are clear, mint and/or moneyer representation in his collection are not necessarily that of any given hoard as a whole. The rarer mints will be over-represented compared with the larger or more local mints present in greater numbers, and Cotton's selection will also have depended on what coins were already represented in his collection, thus further distorting the evidence and increasing the difficulties in identifying the locations of the finds from those mixed with coins from other sources in Cotton's collection.

³⁶ Dolley 1954, 76 and 78, suggested that some of the restored coins were stolen pieces which had found their way to other collections, but most if not all were probably among the 'confused' Cotton material delivered to the museum. Gifford notes p. 20 'the above 8 [Pegge entries] are in y^e Mus. with which came the following [Gifford entries]' and p. 24, 'The first [of two Pegge entries] brought to & put into y^e Museum' and just below 'The second was found'. It is possible that others remained from those days among the early unregistered material in the museum whose provenance could not be established.

³⁷ Dolley 1954, 78; Van der Meer 1994, 225.

³⁸ As none of the coins of Edward the Elder were in 'frames' (see 'Coin containers' section below), any coins of Athelstan from this find (if they have survived) are likely to be among the coins in the Corpus which have been weighed.

It was noted by Dolley and Strudwick that the collection is biased in favour of coins struck on or north of the Thames, and they suggested that this showed that the collection had been built up in the main from local finds around Cotton's family seat in Huntingdonshire.³⁹ The question of bias is too complex to be debated here, but the predominance of hoards from north of the Thames, which contributes so strongly to the content of the Cotton collection, is a matter of chance – within a relatively short time-span the incidence of hoards need not conform to any perceived norm. It may be accepted that Cotton, like most collectors, acquired some local finds, but the Peiresc evidence now shows that the bulk of the collection is unlikely to have been built up in this way. Cotton's acquisitions were not made evenly throughout his life, as such a method of acquisition could be expected to reflect. A large part of it had been secured by 1606, and most of it a few years before that. Even postulating an early start, it seems unlikely that Cotton could have built up so large and representative a collection based principally on local finds. The acquisition profile would, however, be explicable if Cotton, like other early collectors, had purchased one or more cabinets of previous antiquaries and then added individual coins or parcels from hoards whenever they appeared locally or on the open market. Cotton had acquired the manuscripts and notebooks of some of his friends after their deaths and it is likely that he made additions to his coin collection in the same way. Even some of the hoard coins could derive from these earlier cabinets. Relatively little is known about English collections in the sixteenth century, and even less about the detail of their content, so it is not possible at the moment to establish any earlier pedigree for Cotton's Anglo-Saxon coins. It seems probable that Cotton acquired Aske's collection of British Iron Age coins.⁴⁰ As has been seen, he acquired coins from Peiresc and he employed agents to seek out coins for him.⁴¹ None of the Cotton coins examined are pecked, so it is unlikely that he acquired coins from the Viking area and this conclusion is supported by the presence in his collection of just one coin of Cnut. This also confirms that the small groups of coins of Cnut's sons and the coins of Æthelred II were also English single or multiple finds.

Curation of the collection

It is known that Cotton concerned himself personally with the running of his library and maintained a record of loans, crossing items off when they were returned.⁴² An undated note in Cotton's hand describes the internal arrangements of the double-fronted cabinet in which coins and other small items were kept.⁴³ It had eight leaves and two drawing boxes with the third leaf on the first (left?) side 'contayning Coyns of the Saxon kings som in silver som in gold'. A few coins were housed in drawers dispersed among the book presses, but may not have included any Anglo-Saxon ones.⁴⁴ Nothing further is recorded about how they were arranged and labelled, if at all, and this need not have remained the same throughout Cotton's lifetime. Some clues are provided by the Peiresc lists.

It may be asked which of the two lists, Tate's alphabetical or Peiresc's geographical and chronological, represented Cotton's arrangement of his collection? At first sight, Peiresc's would seem to be more in keeping with Cotton's emphasis on the history of his country, and that is how he arranged his draft catalogue in 1617.⁴⁵ Tate's list, with its inserting of omitted coins, might suggest that he had been converting another arrangement into an alphabetical one, but the curious inclusion of coins in the regular sequence numbered '0' and '00' or without numbers prompts a different and probably better interpretation. He could have been listing a collection which had been numbered but to which some coins had been added at their alphabetical places later, but no re-numbering had been done; the marginal additions were recent acquisitions which had not yet

³⁹ Dolley and Strudwick 1954, 306, and van der Meer 1994, 225.

⁴⁰ Harvey and Harvey 2003, 177.

⁴¹ Cotton was sent Roman coins both from Paris by William Bold and from Dublin by James Ware: Sharpe 1997, citing Cotton MS Julius C III f. 26 and f. 388 respectively.

⁴² Tite 1992, 180–1.

⁴³ Sharpe 1979, 66, citing BL MS Add. 35213, fo. 42. Dr Cohn Tite identifies the hand as Cotton's (*pers. comm.*).

⁴⁴ Tite 1984, 6. Dr Tite (*pers. comm.*) informs me that the source of this information is Humphrey Wanley (1672–1726).

⁴⁵ As n. 31.

been put into their alphabetical positions because of the bother of shifting around the existing coins. Looking again at Peiresc's list does suggest that he could be re-arranging the position of some of the coins in his fair copy, although the disadvantages of the traditional alphabetical system for his main historical purpose may have caused Cotton to change the arrangement of his coin collection then or later. The readings of coin legends in the two lists not infrequently differ which suggests that Tate and Peiresc were deciphering the readings for themselves, not copying from a list or labels written by Cotton.

What of the kingdom and reign attributions – were they Cotton's or Peiresc's? The marginal notes made by Peiresc suggest that he was basically transcribing Cotton's reign attributions, but occasionally and perceptively querying them in cases he thought doubtful.⁴⁶ Cotton is said to have supervised the selection of plates for Speed in 1611 and virtually acted as its editor, but in his draft catalogue he makes a number of pertinent comments which shows he has formed independent views of his own, for example querying Speed's attribution of the Eanred of Northumbria (no. 4) to Redwald of the East Angles.⁴⁷ The selection of the coins in his collection implies considerable numismatic knowledge and expertise on Cotton's part, although if he had acquired the cabinets of earlier collectors some of the credit may initially be due to them. To choose one coin of each reign, type, mint and moneyer requires that the legends were read and broadly understood and this is confirmed in the cases where there are near duplicates. Careful examination shows that they have both been retained because there is some difference between them in spelling or other details.⁴⁸ Just as elsewhere in his collection Cotton enjoyed curiosities and kept a surprising number of blundered coins also simply because they were different. Peiresc's reign attributions do generally reflect Cotton's, although he sometimes queries them, and these errors are fully discussed by van der Meer⁴⁹ and noted throughout the Corpus.

Coin containers

Evidence for the housing of individual coins is found in Pegge's letter to David Casley, the curator of the Cotton collection, which precedes his 1748 inventory. He writes 'All [the coins] that were not in Frames have their weight annex'd'. If Pegge was careful to weigh all the others, which there is no reason to doubt, the absence of weights may be taken as an indication that these coins were in frames.⁵⁰ As it stands this statement might be understood to imply picture frames containing groups of coins, but Pegge mentions a frame in the inventory itself on p. 4 in connection with the East Anglian coin of Beornwulf of Mercia (no. 33) which describes 'Head very rude. upon ye Ivory frame it is call'd 'Conulf Rex', and to that Prince [Coenwulf of Mercia, 796–821] I therefore here refer it, but q'.

It would be reasonable to assume that the other unweighed coins were also contained in similar individual ivory frames, possibly with the appropriate king's name inscribed on the rim, although the frames may not have been of uniform material or design. Whether any additional details also appeared it is impossible to say, although space would have been limited. These frames recall the ivory and wooden cases used to contain small precious objects such as relics and early sixteenth-century portrait miniatures.⁵¹ As Pegge gives details of both sides of the coins, these frames were such as to permit both sides of the coin to be seen and recorded. No glazing is mentioned.

Frames of this type are also found as coin containers in other contemporary collections. Abraham van der Doort in his inventory of Charles I's collection c.1640 notes that the king had shown him 27 gold coins in 'black turned hoops' (i.e. ebony ring-mounts) which had been the

⁴⁶ See Peiresc's comment on p. 244 under the heading 'Nummi Saxonici' above coins of the East Anglian kings, Athelstan and Edmund (nos 49–54, 56–8 and 65), that although their older, larger, lettering does not allow them to be attributed to the kings of England with those names, it is not easy to place them.

⁴⁷ Tite 1992, 179 (n. 8).

⁴⁸ See, for example, Corpus nos 50–1, 53–4 and 60–2 of the East Anglian kings.

⁴⁹ Van der Meer 1994.

⁵⁰ Broken coins were almost certainly not in frames even though they were not weighed. The sceat (no. 1) was also probably not framed. It was normal practice (for example in *BMC*) not to give the weights of damaged coins. They are excluded from the list of framed coins.

⁵¹ Foskett 1963, 37, 45 and pl. 4 (the miniature by Hans Holbein of Anne of Cleves).

property of his older brother Henry, Prince of Wales (1594–1612), probably from the magnificent ebony and ivory cabinet containing classical coins belonging originally to Abraham Gorlaeus (1549–1609) of Delft which he had purchased in 1612.⁵² It would seem that the 'frames' which contained some of the Cotton coins are likely to have been similar ring-mounts with broad enough borders to have identifications written on them. As Pegge did not remove them they had probably been fixed closed and did not have screw fittings as some of their latter-day plastic successors. It seems likely that they were removed soon after the coins reached the British Museum and either then, or later, when the connection of the scraps of broken ivory frames with one of the foundation collections had been forgotten, were not thought worthy of preservation. Today there is no trace of them in the Departments of Coins and Medals or Prehistoric and Later Europe. The diagnostic frames are likely to have been removed by the thieves before selling any stolen Cotton coins so none appear to have survived.

The coins likely to have been in frames in 1747 are: Coenwulf (no. 25), Beornwulf (no. 33), Burgred (nos 37, 39, 41, 44), Athelstan I of East Anglia (nos 55, 56), Edmund of East Anglia (nos 65, 66), St Edmund (no. 67), St Martin of Lincoln (no. 69), St Peter of York (no. 70), Ecgbert (no. 78), Æthelwulf (no. 80), Athelstan (nos 127, 130), Eadred (no. 140), Eadwig (no. 142), Æthelred II (nos 153, 155), Harthacnut (nos 161, 175, 176), Harold I (nos 167, 168, 169), Edward the Confessor (nos 181, 184, 193). Both coins listed in 1606 and others apparently acquired later were still framed in 1747, indicating that they do not represent coins obtained from a particular earlier source. It is clear from the list that, as they stood in 1747, the frames did not contain a representative cross-section of the coins or the most rare and choice specimens among them. It is notable that none of the numerous coins from the Edward the Elder hoard group were in frames while the issues of Cnut's sons are well represented. There might have been more than one kind of frame and some of the coins could have been removed from their frames for various purposes long before Pegge saw them. Some of the frames may have been removed when coins were drawn for inclusion in numismatic books, but some of the coins illustrated in Speed were in frames. Whatever the reasons for framing and deframing the coins, it seems to have been Cotton's own practice, perhaps influenced by an earlier collector whose cabinet he had acquired, or what he had seen elsewhere in antiquarian circles.

Losses from the collection

In theory, coins recorded in Cotton's collection earlier in his life need not necessarily have been retained by him until his death, and some could have been lost in the Ashburnham House fire of 1731, although that has never been established. Most of the losses seem to have been the result of theft. Of the 165 Cotton coins noted in the Peiresc and Tate lists up to 1606, sixty did not survive in the collection to be incorporated into the museum by Gifford in 1756, an overall loss of about 36%. Taking account only of the coins of the eighth and ninth centuries (including with them the few coins of Viking Northumbria of the early tenth century) the losses rise to the startling figure of about 68%. The loss of manuscripts during Cotton's lifetime is estimated at 10%.⁵³

For the period between 1606 and 1631 we have much poorer evidence, knowing of only a small proportion of the acquisitions and the total number of survivors after the losses by theft. As far as the evidence of the survivors goes, the profile of the later acquisitions does not replicate that of the collection before 1606. There is no sign of hoards on the scale evident in the pre-1606 collection and there is a larger proportion than before of coins of the eighth and ninth centuries compared to those of the tenth and eleventh. It is likely that the different rate of losses between the pre- and post-900 series was similar among the later acquisitions, so that coins from the two earlier centuries are likely to have been a greater proportion of the overall acquisitions after 1606 than they had been before that date. Given the bias in thefts towards the earlier coins, the overall loss from the post-1606 acquisitions was probably greater than the 36% it had been from the pre-1606

⁵² Strong 1986, 198–9. Cotton knew Prince Henry well and probably influenced him to begin making a coin collection c.1611, and thus is likely to have known the ebony hoops and ivory tables containing the Gorlaeus coins.

⁵³ Title 1997, 285.

collection. Because of the different profile of the post-1606 collection (see end of the 'Growth of the collection' section above), it is not possible to calculate the number and percentage losses from the number of survivors of the later additions with any degree of certainty, and thus to arrive at the size of the complete scale of losses from the collection overall.

The absence of any inventories of the collection between 1606 and 1748 means that it is only from the appearance of probable Cotton coins in other collections that a *terminus ante quem* can be set to their theft. It is clear from the fate of the Pendraed that even during Cotton's own lifetime items borrowed were not always returned⁵⁴ and no doubt there were other losses, but they only begin to be traceable in the early eighteenth century. While this horizon is to a large extent the result of the necessary detail then becoming easier to obtain, it is also inherently likely that thefts from the collection became a more serious problem after the death in 1702 of Sir John Cotton, who had taken a personal interest in the coin collection. There is some contemporary evidence, but much of it is available because several of the large collections formed in the later seventeenth and early eighteenth centuries were either donated to public institutions, where they still survive, or were not dispersed until a century later, when sale catalogues are more explicit, allowing coins in modern collections to be traced with greater certainty.⁵⁵ Pegge's inventory of 1748 may even have been prompted by a recognition that there had been recent serious thefts rather than a realisation of the cumulative effect of steady attrition over the years. The postscript to his introductory letter is less than clear on this point, remarking that he feared that Cotton's collection 'had been plundered of part of its Treasure some time since he liv'd', drawing particular attention to the fact that fifteen of the 34 Cotton coins illustrated by Speed were missing. Although a few additional pieces disappeared between 1748 and 1756, the bulk of the thefts possibly occurred between 1702 and 1747. The greater losses among the rarer coins of the eighth and ninth centuries, and the abstraction of choice rarities like the coin of Launceston (no. 147) among the later ones, indicate that the thefts were not the work of opportunist thieves, but that the collection was selectively targeted by persons with expert knowledge. As the Cotton collection was never easy of access,⁵⁶ this suggests that they were also known and trusted.

Even before the Peiresc material became available it was recognised that Cotton coins were probably represented in some of the great eighteenth-century collections, particularly that of William Hunter (1718–83).⁵⁷ Since he had begun to collect seriously only in 1770, after the date when the remnants of the Cotton collection were already in the British Museum, he must have acquired the probable Cotton coins through some intermediate collection(s). A number of Hunter's sources are known but they were not identified for individual Anglo-Saxon coins in *SCBI* 2 (Glasgow). Coins were certainly purchased for him at the sale of coins from the collection of James West (1704?–72), one-time President of the Royal Society, at Langfords in 1773.⁵⁸

In the sale catalogue most of the coins are listed only by reign and nothing more, but West had compiled dated manuscript lists of his collection in 1744, now among the Banks papers in the Royal Mint. The coins are listed there in somewhat greater detail, though not always fully enough for comparison, but 25 of the eighth- to early tenth-century coins are accompanied by impressions of one or both sides. Although these impressions have some imperfections and West has touched up details with pen and ink, they approach the usefulness of photographs and allow coins to be identified with certainty in other collections, many of them in Hunter's. In one case the transmission from Cotton through a drawing in the Carpentras manuscript via West to Hunter can be proved absolutely, adding weight to other cases where the link from West to Cotton cannot be demonstrated for certain (Cuthred of Kent, no. 7, **Pl. 27, 1–4** respectively).

At least fifteen coins in West's collection match missing Cotton coins and are now in the Hunter and other collections, as detailed in the Corpus. In other cases where the descriptions are

⁵⁴ Tite 1992, 181.

⁵⁵ For the purposes of this paper it is assumed that the Anglo-Saxon coins in these collections were acquired by the original collector.

⁵⁶ Pagan 2003, 158.

⁵⁷ Dolley and Strudwick 1954, 311, noted a number of Cotton coins in the Hunter collection.

⁵⁸ Macdonald 1899, xvi and xlviii, noted that Hunter's instructions for purchases at the West sale survived in the Glasgow archives, but these were not available to Dr Robinson when writing *SCBI* 2.

inadequate and there are no impressions a connection cannot be proved, but more Cotton coins are likely to be among them and purchased at his 1773 sale. It should be emphasised, however, that not all of West's Anglo-Saxon coins can be matched in the current Cotton corpus. Some could be Cotton coins acquired after 1606 which did not survive in the collection until 1748, but others are more likely to have been acquired from elsewhere. As shown in the Corpus other Cotton coins passed via the West collection to other collections such as Southgate and Tyssen, several ending up in the British Museum. West also donated a number of Anglo-Saxon coins to the Bodleian Library in 1733.⁵⁹ It is possible that no. 26, in the Ashmolean Museum, is one of these coins. Even if this were so, it is not possible to establish whether the other Cotton coins in West's list of 1744 were acquired before or after 1733.

West was not the only collector to acquire stolen Cotton coins, as is shown in Table 1. A number reached other prominent early collections such as those of the 2nd Duke of Devonshire (1672–1729) and the 8th Earl of Pembroke (c.1656–1733), as well as those of other scholar collectors. In these cases the numbers are small, but other Cotton coins may be unrecognisable or be unknown because they were among the acquisitions of Cotton's later years. The person or person stealing Cotton coins to sell is unknown, and until there is further evidence it would be unfair to speculate.

TABLE 1. Cotton coins in eighteenth-century collections

Devonshire 1729, 1:	64
Browne Willis 1731, 1:	29
Pembroke 1733, 1:	10
West 1744, 15:	7, 9, 24, 35, 40, 15, 16, 21, 28, 30, 32, 36, 45(?), 51, 61
Wise 1750 (book), 1:	26
Eyre 1764, 1:	19
Hunter 1783, 6:	2, 9, 24, 35, 40, 48
Browne 1791, 1:	21
Hodson 1794, 1:	156
Southgate 1795, 4:	16, 21, 28, 30
Tyssen 1802, 8:	3, 7, 16, 30, 45, 51, 61, 156

Seven Cotton coins that Gifford transferred into the British Museum after 1756 (nos 37, 39, 77, 80, 99, 126, 153) do not appear in the Anglo-Saxon catalogues of 1887 and 1893. The only recorded coin of the Edward the Elder's Hand type of Fugel (no. 99) must have been stolen and has never been seen again. The rest of the missing coins were almost certainly not stolen but, having lost their identity shortly after their arrival, as explained above, were probably among the coins disposed of in exchanges or sales of museum 'duplicates' in the eighteenth and nineteenth centuries.

Identifications in modern collections

It is only in the case of the coins transferred to the British Museum in 1756 that there is direct transmission from Cotton's collection into a surviving one. In all other cases the establishment of a Cotton pedigree is a matter of deduction. As coins are mass-produced objects, it is in only a limited number of cases that identifications between coins in Cotton's collection and those in modern sources can be established with absolute certainty in the absence of true images and weights. The accuracy of legends and stopping given in both the early written and pictorial sources cannot be relied upon, especially if they went through one or more transcriptions or stages of copying. In comparing the available data with extant coins it would be possible in some cases to reject a true identity because certain details do not match or to dismiss differences as errors and propose an identity where none exists. Decisions in such cases are rarely clear-cut and are a matter

⁵⁹ SCB/9, xiii.

of individual judgement. Coins from later hoards and provenanced finds are obviously non-starters, but an early pedigree is not sufficient in itself to establish a Cotton provenance. Coins from the hoards which were the sources of some of the Cotton coins may have been acquired by other contemporary collectors and so passed down into later cabinets, creating problems in identifying the Cotton specimen among several similar coins or even die-duplicates with equally venerable pedigrees. Neither can coins with apparently only short modern histories be ruled out, as the Pendraed demonstrates.

To avoid lengthy discussion of each coin in the Corpus, four categories have been adopted to indicate the degree of likelihood of an identification. In the first category it is said that the Cotton coin is the named coin in a modern collection or publication. This category is narrowly defined and includes only those pieces transferred directly to the British Museum from the Cotton collection in 1756 and those coins of which realistic drawings exist or whose descriptions or drawn physical characteristics are specimen-unique, for example those with holes or illegible areas in the same position. In the second category it is said that the Cotton coin is *probably* the named coin. These are coins where the descriptions fit acceptably, they are the only known eligible coin and almost always have an early pedigree, often in a collection in which other Cotton coins are known to have been found. In the third category it is said that the Cotton coin is *possibly* the one named, where one candidate is more likely, but the evidence is not so strong or there are greater problems in reconciling readings. In the final category Cotton coins are described as 'not traced' when there is more than one, sometimes many, possible candidates or none at all. In some cases in this category an identity may be suggested in the commentary where there is insufficient evidence for it to be placed in the main entry or where one of two candidates is probably the Cotton coin but it is not possible to say which. Eligible coins with no claim for consideration beyond correct readings are not cited. There are grey areas between all of these categories and where the line is drawn is often a subjective decision, but it is hoped that enough detail is given in the Corpus to allow readers to reach their own conclusions.

It is currently possible to identify 166 out of the 204 Cotton coins known. One hundred and fifty-nine in public collections, mentioned in the main entries of the Corpus, are listed in Table 2. Less secure candidates discussed in the commentaries below each entry are not included. In some of the latter cases the choice is almost certainly between coins in just two public collections, but these are not listed in the table.

TABLE 2. Cotton coins in public collections

British Museum, 144:	1, 3, 5-8, 13-16, 18, 20-21, 23, 25, 27-28, 30, 33, 36, 38-39, 41, 43, 44, 45, 49-51, 54-58, 60-61, 63, 65-70, 72-74, 78, 83-91, 93-98, 100-4, 106-7, 109-11, 113-17, 119-25, 127-30, 132-3, 135-45, 147-8, 150, 151-2, 154-5, 156, 158, 161-4, 166-8, 170-2, 174-82, 184, 186-9, 191, 193, 195-7, 199-203
Ashmolean Museum, Oxford, 4:	12, 26, 29, 71
Fitzwilliam Museum, Cambridge, 1:	10
Hunterian Museum, Glasgow, 8:	2, 9, 24, 35, 40, 48, 82, 105
Leeds University, 1:	19
Berlin, State Museum, 1:	22

Conclusions

With the discovery of the Peiresc manuscripts in The Hague, the evidence now available for Cotton's collection of Anglo-Saxon coins is exceptionally extensive and detailed. A total of 204 coins can be listed and classified according to modern scholarship with a fair degree of certainty. The size of the collection before serious losses by theft is still uncertain. Identifying the coins in modern collections and publications is more problematic, but 166 coins can now be traced either certainly or at least possibly. Many questions about the collection discussed above and in the Corpus have not been fully resolved and much work remains to be done on all aspects of the Cotton collection of Anglo-Saxon coins.

CORPUS

Notes on the compilation and order of information given in the Corpus

The coins are silver or base-silver pennies except for the gold *mancus* of Pendraed (no. 13); nos 1–3 and no. 5 are sceattas (pennies on small, thick, silver or base silver flans) and no. 4 is a styca (similar on a base-metal flan with little or no silver). They are listed according to modern attributions and classifications followed by North number and references to other standard works. Dating follows North. The inscriptions are then transcribed as they appear in the more detailed Peirese list (vol. II, pp. 255–68) unless otherwise stated. The shapes of individual letters are usually carefully delineated in the manuscript and have been taken into account in establishing the identity of the coins in modern collections, but cannot be reproduced here. Contraction marks have not normally been shown. Runic letters are not always correctly transcribed. Any significant differences in the Tate list (Peirese vol. II, pp. 247–50) are mentioned in the comments below each entry. Ligatured letters are denoted by underlining. The legends of coins which appear only in the Pegge 1748 inventory or other sources are transcribed from them in the same way. The presence or absence of initial marks and punctuation follow the manuscripts, where their inclusion is inconsistent. The complexity of the punctuation (e.g. under Offa) and its positioning cannot be fully reproduced although it is taken into consideration in matching coins in modern collections. No weights are recorded in Peirese, but where weights are given in Pegge 1748 they are noted; weights of coins in modern collections are not quoted in the commentary unless they are material to the discussion. The legends are followed by citations in selected early manuscript and printed sources in chronological order of writing or publication, and then by the identification of the coin in modern collections under the categories of likelihood discussed above. The commentary below each entry includes regal attributions in the Peirese manuscript different from those currently accepted and possible, but less secure, identifications with coins in modern collections.

Principal manuscript and early printed sources with abbreviations

References are made systematically in the Corpus to the various Peirese manuscripts, the Pegge manuscript of 1748, Speed 1611 and Fountaine 1704 (where probable). Other sources are mentioned in the commentary below each entry as necessary.

Britannia (1695)	Gibson's edition of William Camden, <i>Britannia</i> , (London, 1695).
Britannia (1789)	Gough's edition of William Camden, <i>Britannia</i> , (London, 1789).
CC	Charles Combe's manuscript notebook compiled c.1774–82, with a few later additions, in the library of the Department of Coins and Medals, British Museum (see M under 'Modern publications' below).
TC	Robert Bryer's manuscript copy made in 1812 of Taylor Combe's annotated plates, the property of the British Numismatic Society, deposited in the library of the Department of Coins and Medals, British Museum.
D'E	Plate prepared for Sir Simonds D'Ewes in 1649, National Library of Ireland MS 8390(4). (See Pagan 1987, 176. Citations are made from a photocopy of the plate kindly made available by Hugh Pagan.)
F	Andrew Fountaine, <i>Numismata Anglo-Saxonica & Anglo-Danica Breviter Illustrata</i> (Oxford, 1704).
P	Pegge manuscript in the library of the Department of Coins and Medals, British Museum, 1748 followed by page/number on the page if given (see D&S 1 below).
PA	S. Pegge, <i>An assemblage of coins fabricated by authority of the Archbishops of Canterbury</i> (London, 1772).
PC	Peirese manuscript in Carpentras, 1608 (see Sturdy 1983).
P(G)	Coins in the Pegge manuscript added by Rev. Andrew Gifford after 1756.
PH	Peirese manuscript in The Hague, 1606. All the references are to vol. II, except for no. iv in Appendix 2, which is from vol. I; entries are cited by page/number on the page if given.
R	Rev. Rogers Ruding, <i>Annals of the Coinage</i> , 3rd edn (London, 1840).
RN	Notebook of Rev. Rogers Ruding, British Library Additional MS 18093, recording coins in the British Museum and Southgate's collection before 1795. (I owe this reference and details to Hugh Pagan).
S	John Speed, <i>History of Great Britaine</i> (London, 1611). The 1611 edition is cited here unless stated.
W	Loose unnumbered sheets listing Anglo-Saxon coins in the collection of James West (1704?–72), compiled by him and dated 29 August and 10 September 1744, among the Sarah Sophia Banks papers in the library of the Royal Mint. Citations below are to the later version.
Ws	Francis Wise, <i>Nummorum Antiquorum Scriniis Bodleianis Reconditorium Catalogus</i> (Oxford, 1750).

Early undocumented and unprovenanced acquisitions by the British Museum are noted as before 1782 (present in the Charles Combe manuscript), before 1812 (in the Taylor Combe manuscript) or before 1838 (present in the collection before systematic registration began in 1838 and, as they are not included in Taylor Combe, almost certainly between 1812 and 1838).

References to pedigrees and sales

Generally, references are confined to the most recent owner and, following 'from', other early collections or sales through which the coin is known to have passed. The first day of the sale only is mentioned. Lot numbers are given if these are known, but in some cases the sale of origin may be recorded but many lots are not described in sufficient detail for individual coins to be identified. Complete pedigrees have not been attempted.

Bird, 1974	Glendining, 20 November
Bergne, 1873	Sotheby, 20 May
Boyne, 1843	Sotheby, 19 July
Boyne 1, 1896	Sotheby, 21 January
Browne, 1791	Sotheby, 16 March
Cuff, 1854	Sotheby, 8 and 26 June
Carlyon-Britton 3, 1918	Sotheby, 11 November
Devonshire, 1844 (1729)	Christies, 26 March. Collection essentially formed by William, 2nd Duke of Devonshire, 1672–1729.
Dimsdale, 1824	Sotheby, 6 July
Lockett 1 and 7, 1955/1958	Glendining, 6 June/4 November
Montagu, 1895	Sotheby, 18 November
Murdoch, 1903	Sotheby, 31 March
Pembroke, 1848 (1733)	Sotheby, 31 July. Collection essentially formed by Thomas, 3rd Earl of Pembroke, c.1656–1733.
Rashleigh, 1909 (1811)	Sotheby, 21 June. Collection essentially formed by Philip Rashleigh, 1729–1811.
Ryan 2, 1952	Glendining, 22 January
Southgate, 1795	Leigh and Sotheby sale catalogue without date, collection sold before sale to Samuel Tyssen. The British Museum acquired a number of his coins directly.
Warne, 1889	Sotheby, 24 May
West, 1773	Langford, 19 January. Few coins can be identified individually in the sale so coins are cited from his 1744 manuscript inventory (see W above).

Principal modern publications cited and abbreviations

(See also 'References', below, p. 202.)

Publications are cited by their author and year or abbreviation.

B	C.E. Blunt, 'The coinage of Offa', in R.H.M. Dolley (ed.), <i>Anglo-Saxon Coinage</i> (London, 1961), 39–62. Coins are cited by the number in his list, which can refer to more than one coin. Although this paper is not a corpus, Blunt notes how many coins of each type he has seen.
Bl	Blunt 1958.
Bo 1	J. Booth, 'Sceattas in Northumbria', in D. Hill and D.M. Metcalf (eds), <i>Sceattas in England and on the Continent</i> , BAR British Series 128 (Oxford, 1984), 71–111.
Bo 2	J. Booth, 'Monetary alliance or technical co-operation? The coinage of Berhtwulf of Mercia (840–52)', in M.A.S Blackburn and D. Dumville (eds), <i>Kings, Currency and Alliances</i> (Woodbridge, 1998), 63–103.
BLS	C.E. Blunt, C.S.S. Lyon and B.H.I.H. Stewart, 'The coinage of southern England, 796–840', <i>BNJ</i> 32 (1963), 1–74.
BMC	<i>Catalogue of English coins in the British Museum</i> : C.F. Keary and R.S. Poole, <i>Anglo-Saxon Series vol. I</i> (London, 1887); H.A. Grueber and C.F. Keary, <i>Anglo-Saxon Series vol. II</i> (London, 1893).
BMA	G.C. Brooke, 'Anglo-Saxon Acquisitions of the British Museum', <i>NC</i> 5th Series, 2 (1922), 214–44; 3 (1923), 243–59; 4 (1924), 86–95, 239–53; 5 (1925), 343–65.
BMS	M.M. Archibald and C.E. Blunt, <i>SCBI</i> 34. <i>British Museum Anglo-Saxon Coins V. Athelstan to the Reform of Edgar 924–c.973</i> (London, 1986).
CTCE	C.E. Blunt, C.S.S. Lyon and B.H.I.H. Stewart, <i>Coinage in Tenth-century England from Edward the Elder to Edgar's Reform</i> (Oxford, 1989).
D&M	R.H.M. Dolley and D.M. Metcalf, 'Two stray finds from St Albans of coins of Offa and of Charlemagne', <i>BNJ</i> 28 (1957), 459–66.
D&S 1	Dolley and Strudwick 1954.
D&S 2	Dolley and Strudwick 1955–7 [with C.E.B(lunt) and F.E(lmore) J(ones)]. Emendations and additions are given in the 'Appendix' to Martin 1961 but it should be noted that more are now required.
M	Martin 1961.
N	J.J. North, <i>English Hammered Coinage</i> I, 3rd edn (London, 1994).
Pa	H.E. Pagan, 'The coinage of the East Anglian kingdom, 825–70', <i>BNJ</i> 52 (1982), 41–83.
St	Sturdy 1983.
SCBI	<i>Sylloge of the Coins of the British Isles</i> , followed by the volume number, short collection identification and coin number.

ANGLO-SAXON COINS IN THE COTTON COLLECTION

SCEATTAS, late 7th to early 8th centuries

1. **Uncertain Series.** P 25/2. This coin is stated in P to have no inscription and a standing figure holding two crosses; the type on the other side is not described. British Museum, not identified.

No weight is given in Pegge 1748. Gifford did not annotate P 25 headed *Nummi incerti* with his usual note that the three coins on it had, or had not, been transferred to the British Museum, but the other two coins are present in its trays. It is therefore likely that this coin, the only Southumbrian sceat certainly in Cotton's collection, is one of the five unprovenanced pre-1838 acquisitions of various Secondary series with this type, but no inscription (*BMC* nos 89, 99, 108, 111, 172).

Uncertain series. See Appendix, i.

NORTHUMBRIA

EADBERHT, 737–58

2. No moneyer. N 177, Bo class A (i). EADBERHTVF. PH 255. This coin is possibly *SCBI* 2 (Glasgow), no. 134, almost certainly ex Hunter 1783, Bo 11.

The coin is attributed in PH to Kent and dated 726 (as for Eadberht, 725–c.748). There are several eligible coins of which the above is the most likely.

3. No moneyer. N 178, Bo class B (ii). EOTBEREDTVS. S 329, F VIII, 1. This coin is possibly *BMC* no. 5, ex Tyssen 1802, Bo 17.

The spelling of the king's name on the coin in the Speed illustration means that it cannot be identified with PH 255 (no. 2).

ÆTHELRED I, Second reign, 789–96

Ceolbald. See Appendix, ii.

ÆANRED, c.810–40 or c.830 or earlier–c.854

4. Eadwine. N 186. ÆANRED REX / + EADVINI. PH 250/106 and 256. Possibly S 305 & 332, F VIII, 1. This coin is possibly *BMC* no. 92, acquired before 1812.

The reverse type is drawn only on PH 256, a cross pattée with rays in the angles. The coin is described in PH 250 as 'gold' and in PH 256 as 'a gold coin of a king unknown to me if [it is] not possible to read it as ÆANREDVS, the king of the Mercians of that name who died in AD 704' (i.e. Cenred, 704–c.709). D&S 1 suggested that the Speed coin was possibly *BMC* no. 92. This identification is likely as both have pellets in the reverse cross angles, the Speed obverse legend ending RE is explicable as the X of REX on *BMC* no. 92 is only partially visible and the latter's obverse cross with pellet arms could well be represented by the second curious version shown in Speed. For this coin to be equated with the Peiresc entry requires the rays in the latter to be accepted as a misrepresentation of the pellets. This, on balance, seems just preferable to postulating either another coin (possible) or a gold forgery (unlikely).

ARCHBISHOP OF YORK

ECGBERHT, 732/4–58

5. Under King Eadberht. N 192, Bo class v, 20. EOTBERHTV / ECGBERHT R. P 8/3 (wt 18 gr), F VIII, 4. This coin is *BMC* no. 4.

F misreads the obverse as -VIBERHTVI, and P has R for A on the reverse.

Under King Eadberht. See Appendix, iii.

KENT

CUTHRED, 798–807

6. Eaba. Canterbury. N 208, BLS IA i, 2. +CV-ÐR-E-D REX / +E/AB/A. PH 248/36 and 263 P7/2. S 299, F IV, 5, D'E. This coin is *BMC* no. 12 (fragment of about two thirds of the coin).

This coin is attributed in PH to Cuthred of Wessex (740–56). It is described by Pegge in 1748 as 'a broken coin' (an expression often meaning a fragmentary one). D'E shows that some damage had already occurred by 1649.

7. Sigebert. Canterbury. N 211, BLS II, 20, St 1. +CV-ÐRED REX CANT / +SIGEBERTI MONETA. PH 248/35 and 255, PC 118 (d). This coin is *BMC* no. 8, ex Tyssen 1802, from West (1744, impressions).

The Carpentras drawings, West impressions and photographs of *BMC* no. 8 on Pl. 27, 1–3, show the off-centre striking with the pellets of the outer circle visible at the right-hand side of the reverse which identifies the Cotton coin as the British Museum specimen rather than another of early provenance from the same obverse die, the chipped *SCBI* 2 (Glasgow), no. 387, ex Hunter (Pl. 27, 4).

8. Werheard. Canterbury. N 211, BLS II, 22. +CV-ÐRED REX CANT / +VERHEARDI MONETA. PH 248/34 and 255, P 7/1 (wt 21½ gr), F IV, 2, D'E. This coin is *BMC* 9.

The HE is ligatured (correctly) on PH 255 but not on PH 248.

ARCHBISHOPS OF CANTERBURY

CEOLNOTH, 833–70

9. Dīala. Canterbury. N 244, Group II. +CEOLNOÐ ARCHIEP / +DIALA MONETA DORO. PH 245 and 248/28. S 365, F III, 1. This coin is probably *SCBI* 2 (Glasgow), no. 404, ex Hunter 1783, from West (1744, impressions).

Pegge (PA 1772, 14–5) annotates his illustration, copied from Fontaine, 'This penny now extant in the cabinet of the Hon. James West Esq. . . . weighs 20½gr' and notes that another example is in the Duke of Devonshire's cabinet (weight not quoted). The impressions in West's 1744 manuscript show that his coin is certainly the specimen now in the Hunterian, whose weight is recorded in both Ruding pl. 13, 2 and in *SCBI* as 19.8 gr. The Devonshire specimen (via Cuff 1854, 396, where no weight is given) is *BMC* no. 39, whose weight is recorded in the catalogue as 20.5 gr. The incompatible weights are almost certainly to be explained as an error by Pegge in 1772 in giving the weight of the Devonshire to the West specimen. Pegge also notes that the West specimen was that engraved by Speed and Fontaine, confirming that the Cotton coin is the West/Hunter specimen rather than *BMC* no. 39. The curious formula 'now extant' suggests that Pegge knew or suspected that this coin had been Cotton's.

10. Wynnere. Canterbury. N 242. Group I. CEVLNOÐ ARCEPIS / VVYN ···· RE MONETA. PH 245 and 248/29, F III, 2. This coin is *SCBI* 1 (Cambridge), no. 445, ex Carlyon-Britton 1913, 302, from Pembroke 1848 (1733), 33. (Pl. 27, 5) The legends above are transcribed from PH 248. PH 245 adds the initial crosses and completes the reading VVVNNERE. The four dots on PH 248 indicate an illegible section of the obverse legend which the Cambridge coin also displays in precisely the same position and is the only known match in all other respects. The second letter of the obverse legend is almost illegible on the coin which explains the erroneous readings in F (CVLNOD) and PA (where the coin is noted as in the Pembroke cabinet, CIVLNOD); both complete the reverse reading.

PLEGMUND, 890–923

11. Berhtelm. Canterbury. Possibly N 256. Late II, series 3. CTCE P.4. PLEEMVND ARCHIEP / BIERTHELMMO. PH 247/–. Not traced.

No description or drawing of the types is given in PH 247, but the moneyer is so far known for Plegmund only in N 256. Apart from a fragment in poor condition, Bird 1974, 50 (probably a recent find), the only relevant coin in *CTCE* is *SCBI* 50 (St Petersburg), no. 125, ex Reichel 1858. Reichel acquired coins in western Europe, but no earlier provenance of this coin is recorded in *SCBI*. While the G on the obverse of this specimen might easily be mistaken for an E, the reverse clearly reads BER. The form BIER . . . recorded in PH 247 is in fact known among the Vatican hoard coins of the same type, so it would be unsafe simply to dismiss the reading as an error in transcription in PH. While allowing that an identity with the Reichel specimen is possible, the Cotton coin could be another missing specimen of this or even (although less likely) another type.

12. Eicmund. Canterbury. N 256, Middle II – Late I, *CTCE* P.5 (n). +PLEGMVND ARCHIEP / EICMV/NDMO. PH 245 and 247/–. F IX, 2. This coin is possibly *SCBI* 9 (Oxford), no. 55, ex Glendining, 15. iii. 1962, 2128.

Peirese comments, correctly, on PH 245 that this coin belongs to the period of Edward the Elder. Pegge (PA, p. 17) says that his illustration (based on Fontaine) shows 'one of Sir Robert Cotton's coins but is now lost, as many of his coins are, and consequently does not appear in the British Museum' (a formula copied by Ruding, pl. 13, 2). The only eligible coin in *CTCE* which reads MO is the Oxford coin. The engraving in F omits the R in the archbishop's title (also copied by Ruding), which PH shows to be an error, and the differences in punctuation may probably be safely disregarded, but it remains possible that the Oxford coin could be a different specimen and the Cotton coin is still missing.

MERCIA

OFFA, 757–96

13. Period of Offa, Pendraed. Gold *mancus*, N. 258/1. +PAENDRAED MVNITA REX / PEND REd. S 315, Cotton 1617. This coin is BM 1962, ex Christie, 30. v. 1961, 16 (purchased by C.E. Blunt for presentation to the museum).

Reading above from Speed, the Ds being a hybrid Roman D with a gap between the upright and long upper serif. Pegge notes in 1772 (PA p. 45), 'The piece was formerly a part of the Cotton cabinet but is now secreted' and remained so until the 1961 sale (Blunt and Dolley 1968, Tite 1992 and discussion on p. 176 above).

14. Ciolhard. N 317, cf B 23, St 3. OFFA: R.E.+ / CIOL / HARD. PH 255, PC 118. P 3/1 (wt 18½ gr). F VIII, 6, D'E. This coin is *BMC* no. 11.

Ealhræd. See Appendix, iv.

Eadberht. See Offa with Eadberht, Bishop of London, no. 21 below.

15. Eoba. N 306, B 52. EO B A / OFFA REX. PH 69, 101 and 271, F IX, 7, D'E. This coin is probably *BMA* no. 20, ex Evans 1915, ex Bergne 1873, 50 (wt 1.22 g, 18.9 gr), from Rebello d. 1803 (Ruding 4, 14, wt. 19 gr), from West (1744, impressions).

The legend above follows PH 101; the other two entries omit the trefoil before EOBA and PH 69 has a quatrefoil of pellets between B and A. This coin is stated in PH 271 to have been found in the Narbonne region of France (date not given) and probably passed to Cotton from a French collection (see discussion on p. 174 above).

16. Ethelnoth. N. 326, B 96, St 5. +OFFA / REX / M / ·EþEL· / NOD. PH 257, PC 118. This coin is *BMC* no. 48 (pierced and plugged), ex Tyssen 1802, ex Southgate 1795, from West (1744, impressions).

The hole in the coin shown in the PC drawing was still open in 1744 as it features as a blank in the same position in the West impressions of 1744, but it had been plugged before it reached the British Museum. D&M 1957 showed that *BMC* no. 48 is the coin illustrated in *Britannia* 1789 (vol. I, cxiv, pl. xvii) where Gough is discussing the discovery of an Offa penny at St Albans. Their statement that 'From the hands of the actual finder the penny passed to the cabinet of James West, who was MP for St Albans' is, in the light of the Peirese evidence, no longer tenable. The St Albans provenance could theoretically have been passed down from Cotton's time to 1789, but such a transmission would be unique among his coins and must be regarded as unlikely. It seems more probable that Gough did not illustrate the actual coin found at

St Albans but, as was not uncommon practice among early antiquaries, used an engraving of a similar coin (the Cotton/West specimen, then in other hands). The Offa coin found at St Albans is thus almost certainly not the Cotton specimen, *BMC* no. 48, but is probably one of the three others of this type known to Blunt in 1961.

17. **Ethelnoth**. N 321, B 97. +O(3 pellets vertically) FFA· / REX· / m / EþEL / NOP. PH 257. R 5, 23. This coin is possibly British Museum, ex Carlyon-Britton 1604, from Rebello (d. 1803).

The British Museum coin was the only one of its type known to Blunt in 1961, but the stopping does not exactly match. The earliest provenance given in the Carlyon-Britton sale catalogue is the Major Hay collection, but in fact the coin came from an anonymous property sold on the same day (Sotheby 8 April 1880, p. 36 lot 490) just before the start of the Major's lots on p. 37.

18. **Ibba**. N 301, B 64. ··OFFA REX· / +H-B-A·. PH 257, P 3/2 (wt 18½ gr). S 344, F VIII, 3. This coin is *BMC* no. 20.

19. **Lul**. N 337, B 114, St 4. +OFFA· / REX· / m / +LUL. PH 257, PC 118, F IX, 8, D'E. This coin is *SCBI* 21 (Leeds), no. 954 (pierced), ex Winchester collection 1954, from Eyre 1764.

Sturdy 1983 suggested that this coin was possibly *BMC* no. 52 but that coin is intact whereas the Leeds coin has a hole in exactly the same position as the coin drawn in PC 118. The collection of William Eyre (1698–1764), a Winchester lawyer, was formed in the early eighteenth century (*SCBI* 21, xxvi). D'E shows the hole not detailed in F.

20. **Lulla**. N 311, B 66. +OFFA+ REX+ / +CUL·EA. PH 255. P 3/3 (wt 20½ gr), S 301, F VIII, 4. This coin is *BMC* no. 22 (two holes towards the edge diametrically).

OFFA with **EADBEARHT**, Bishop of London, d. c.787–9

21. Bishop Eadberht. N 278, B 34. OF·R·M· / EADBERHT EP. PH 69. This coin is probably *BMC* no. 41, ex Southgate 1795, ex Browne 1791, 22, from West (1744, impressions).

PH lists this as another coin of Offa, but the attribution of the reverse to the bishop rather than a normal moneyer is now generally accepted.

CYNETHRYTH, wife of Offa

22. **Eoba**. N 339, B 118. +· EO·BA / +CFNEORFð·REGIN. PH 250/108 and 258, S 345. This coin is probably *SCBI* 36 (Berlin), no. 71, ex Murdoch 1903, 22, ex Boyne 1 1896, 1118.

PH 250/108 has Ys in the queen's name. This was the only coin of the type known to Blunt. The Speed coin is not as D&S 1954 stated, 'almost certainly the Pembroke coin lot 16' as that coin, later Lockett 1 360, is of B 117.

COENWULF, 796–821

23. **Biornferth**. Canterbury, Group IIIA. N 347, BLS 35 or 36. +COENVVLF REX M / +BIORNFRED· MONETA. PH 247/25 and 258. This coin is possibly *BMC* no. 62 (BLS 36), acquired before 1838.

On the usually less accurate PH 247 the moneyer's name is spelt with E not I, but both spellings are recorded on extant coins. The arrangement of the obverse legend, which distinguishes between the varieties BLS 35 and 36, is not detailed in PH. A coin with the BIORN- spelling is listed in the West 1744 inventory without descriptions of the types or impressions. *BMC* no. 62 (BLS 36) has the earliest known pedigree, but there are other candidates.

24. **Ceolbald**. London. N 355, BLS 94. +COENVVLF REX M / +CEOLBEALD. PH 247/19 and 258. This coin is probably *SCBI* 2 (Glasgow), no. 343, ex Hunter 1783, from West (1744, impressions).

The inverted Ls in the moneyer's name distinguish the reverse of this coin from the only other known coin of the moneyer in the type for Coenwulf. A also inverted.

25. **Dealla**. Canterbury, Group IVC. N 356, BLS 52. +COENVVLF REX M / DEALLA MONETA. PH 247/20 and 258, P 4/2. This coin is *BMC* no. 66.

PH 247 has a pellet before the last A of the moneyer's name.

26. **Diormod**. Canterbury, Group IIID. N 358, BLS 57(e). +COENVVLF REX M / +DIORMOD MONETA. PH 247/18 and 258. This coin is probably *SCBI* 9 (Oxford), no. 18, ex Bodleian (Wise 1750, pl. xvii, 2). (Pl. 27, 6–7)

The Oxford coin is the only eligible coin of the moneyer in the type listed in BLS. Thompson remarks in the introduction to *SCBI* 9 (Oxford), viii, that some of the coins in the Wise catalogue may have been those given by James West in 1733. There is no list of the West gift so an identity cannot be proved in the case of any particular coin, but this coin may well be one of the many Cotton coins which probably passed through his hands.

27. **Eanmund**. London. Group IB. N 342, BLS 19. CONVVLF REX / EANMUND. PH 247/25 and P 4/1 (wt 20 gr). This coin is *BMC* no. 95 (pierced).

The error of the omission of the E in the king's name is perpetuated by ditto marks from PH 247/25–27.

28. **Eoba**. Canterbury, Group IB. N 342, BLS 9. CONVVLF REX / EOBA PH 247/27. This coin is probably *BMC* no. 96, ex Southgate 1795, from West (1744, impressions).

For the misspelling of the king's name see previous coin.

29. **Ethelmod**. Canterbury, Group IB. N 342, BLS 10. CONVVLF REX / EþELMOD. PH 247/26.

This coin is possibly *SCBI* 9 (Oxford), no. 16, ex Browne Willis, 1742–6 or possibly to 1760.

For the misspelling of the king's name see no. 27. The Oxford coin is the most likely of several possibilities. It appears in the Browne Willis notebook of 1731.

30. **Lul**. East Anglia, Early group. N 362, BLS 97. +COENVVLF REX M / +LVL. PH 247/22 and 258, S 347, F IV, 1. This coin is probably *BMC* no. 73, ex Tyssen 1802, ex Southgate 1795, from West (1744, impressions).

The small differences in the details of the cross ends of PH compared with the BM/West coin are probably a matter of interpretation.

31. Tidbearht. Canterbury, Group IIIA. N 347, BLS 38. +COENVVLF REX M / +TIDBEARHT·MONETA. PH 247/23 and 258. This coin is possibly *BMC* no. 81, acquired before 1838, probably from West (1744, no impressions).

PH 247 omits the R in the moneyer's name. There are two candidates in BLS: the Assheton specimen, ex Devonshire 1844 (1729), 22, and *BMC* no. 81. The coin in West 1744 (no impressions) was transcribed, probably in error, TIDBARHT.

32. Wihfred. East Anglia. N 364, cf. BLS 108. +COENVVLF REX M / +EPIRA ꝥH. PH 247/21 and 258. This coin is probably the one in West (1744, impressions), not traced since.

The reading above follows PH 247; PH 258 has EPIR FH. The West coin is a different specimen from the only coin of this moneyer in the type in BLS, BM ex Barnett 1935, ultimately from Rashleigh 1909 (1811), 46.

BEORNWULF, 823–5

33. Eadgar. East Anglia Type III. N 396, BLS 5, St 2. NULF REX D ES / +EAD / GAS. PC 118 and P 4/3. This coin is *BMC* no. 104.

The letters on P are merely adumbrated above; the S after DE is over a small O. This coin was wrongly attributed to Ceolwulf I in PH, P (with a query), *BMC* and D&S 1954, but correctly in BLS and later. P notes 'upon ye Ivory frame it is called "Conulf Rex", and to that Prince I therefore here refer it, but q.' (see discussion of frames on pp. 180–181 above).

34. Monna. East Anglia Type II. N 397, BLS 4. +BEORHPVF RE / + M O·H·N·A (chevron-barred A on its side). PH 247/6 and 259. S 308. F III. 1. Not traced.

The legends above are from PH 247 with the L in the king's name omitted in error. PH 259 reads +BEORHVVLV RE / + M ON·N·A. The last letter of the moneyer's name probably served as a privy mark, as suggested by Lord Stewartby (*S & B's Coin and Medal Bulletin* no. 23, March/April 1995, 8), but both independent entries in Peirese show that Speed was wrong in drawing the last letter on the Cotton coin as a runic ng instead of a chevron-barred A pointing to the right.

LUDICA, 825–7

35. Werbald. East Anglia Type I. N 398, BLS 3. +LVDICA REX ME / PER / BALD / MONE. S (1623) 323, F VIII, 1, D'E. This coin is probably *SCBI* 2 (Glasgow), no. 354, ex Hunter 1783, from West (1744, impressions). (Pl. 27, 8–9)

This coin is not present in the first (1611) edition of Speed, appearing for the first time in the second edition of 1623 and continuing thereafter. The Hunter coin is the only one of the moneyer in BLS. See p. 177 above.

BERHTWULF, 840–52

36. Sigeheah. Group I. N 410, Bo 2, 29–30. BERHTVLF · REX / +ZIGENEAH. PH 247/o & 259. S 308, F III, 2. This coin is probably *BMC* no. 134, acquired before 1803, from West (1744, impressions).

PH 247/o has VIGEHEAH where this coin appears between the coins numbered 6 and 7 in the Tate list. It can be shown, from evidence too complex to rehearse here, that at some stage between the British Museum's acquisition of coins from the Dorking 1817 hoard and the preparation of *BMC*, published in 1887, a cross-and-pellets coin from the hoard had changed places with the cross-and-annulets coin, an earlier acquisition illustrated on Ruding plate 7, 5, originally dated January 1803. It is therefore *BMC* no. 133 with cross-and-pellets reverse which is the Dorking coin (with which its patina is compatible) and *BMC* no. 134 a darker coin with cross-and-annulets reverse which is the earlier acquisition.

BURGRED, 852–74

PH 247 does not record sub-types and PH 259–60 does not differentiate between c) and d). PH 247 records all reverse legends without indication of line-breaks. The evidence of Pegge is accepted on these points. Fountaine is not cited for this reign because he says (p. 166) that the coins of Burgred (not individually identified) are mostly derived from the collection of Rev. George Hickes (1642–1715). The sources of these Hickes coins – a parcel from a hoard (?) or mixed, including Cotton coins (?) – are unknown.

37. Berheah (Beornheah). Lunettes (a). N 423. BVRGRED RE+ / +BERH(three pellets vertically)A / HMON / ETA. P 5/1. Not identified.

Although P 5/1 was transferred into the BM by Gifford in 1756, it does not appear in *BMC*. There is no eligible coin of this moneyer in the British Museum with a trefoil of pellets before ETA.

38. Berlm (Burghelm?). Lunettes (a). N 423. +BVRGRED REX / BERLM / MON / ETA. PH 247/8 and 260, and probably P 5/7 (wt 20 gr). This coin is *BMC* no. 169.

PH 247/8 has I for L. P 5/7 has six pellets after BERLM not recorded in either of the PH entries or on *BMC* no. 169 and so would appear *prima facie* to be a different coin, but see note at no. 41 for why this identity is accepted. *BMC* records the weight as 20.5 gr, as now.

39. Ciallaf. Lunettes (d). N 426. +BVRGRED REX / +CIALLA / FMON / ETA. PH 247/14 and 259, P 5/4. Not traced.

The legends above follow PH 247. PH 259 and P 5/4 (with central hooked lines only) read incorrectly + for F before MON. P 5/4 apparently of type (d) is not *BMC* no. 189 as stated in D&S 1954 for that coin, as correctly stated in D&S 1955–7, is ex Bank of England, 1877. Cotton's coin of Ciallaf was said by Gifford to have been put into the museum, but the only eligible coin in *BMC* is *BMC* no. 191 type (c), ex Tyssen 1802. There are a number of possible explanations, of which the most likely appears to be that the Cotton coin was disposed of as a 'duplicate' at some stage between the acquisition of the Tyssen coin and 1887, and is the pierced coin of type (d) weighing 21½ gr illustrated in RN before 1795.

40. Diarulf. Lunettes (c). N 426. +BVRGRED REX / DIARVLF / MON / ETA. PH 247/13 and 259. This coin is possibly *SCBI* 2 (Glasgow), no. 373, ex Hunter 1783, from West 1774 (rev. drawing).

West 1744 has a drawing of the reverse only (no impressions), but reproduces only the central hooked lines of the type and has a pellet after ETA. The Hunter coin has no pellet after ETA, but there is a tiny pimple in the field which could have been mistaken for one and the hook-ends in West seems to reproduce weaknesses visible on this coin.

41. **Diga**. Lunettes (a). N 423. +BVRGRED REX / +DIGA (6 pellets) / MON / ETA. PH 260 and probably P 5/5. This coin is *BMC* no. 228.

P 5/5 lacks the six pellets after the moneyer's name present on PH 260 and *BMC* no. 228 which *prima facie* would indicate that it is a different coin. It appears, however, to be more likely that Pegge attached the six-pellet motif to the wrong coin: P 5/7 of 'Berlm' (no. 38 above) has it, but *BMC* no. 169 does not, while P 5/5 of Diga lacks the motif, but *BMC* no. 228 has it. It may be suggested that Pegge had made the mistake in transcribing rough notes he made in 1747 into the neat version of them that he sent to Casley on 13 February 1748.

Diga. See Appendix, v.

42. **Duda**. Lunettes (d). N 423. +BVRGRED REX- / +DVDA / MON / ETA. PH 247/7 and 260 P 5/2 (wt 21 gr). Not traced. P has a trefoil of pellets before and after ETA, but normal punctuation is not being recorded at this point in PH. Gifford notes in 1756 that the coin recorded by Pegge in 1748 is missing.

43. **Dudecil**. Lunettes (a). N 423. +BVRGRED REX M / +DVDEEN / MON / ETA. PH 247/10 and 259, P 5/3 (wt 22 gr). This coin is *BMC* no. 250.

PH 247/10 and P 5/3 have DVDECIL.

Dudecil. See Appendix, vi.

Dudeman. See Appendix, vii.

44. **Dudwine**. Lunettes (a). N 423. +BVRGRED REX - m / DVDPINE / MON / ETA. PH 247/15 and 259, P 5/6. This coin is *BMC* no. 260.

P 5/6 has a trefoil of pellets after ETA.

45. **Eanred**. Lunettes (a). N 423. +BVRGRED REX - / EANRED (inverted and retrograde) / MON / ETA. PH 247/16 and 260. This coin is probably West 1744 (impression of obverse only), but not traced later.

PH 247 gives no indication of orientation. West 1744 sets out the reverse inscription showing the moneyer's name inverted and retrograde. There is no matching coin in Hunter. On both *BMC* no. 286, ex Tyssen 1802, and also *SCB* 9 (Oxford), no. 29, illustrated Wise 1750, pl. XVII, 3, the moneyer's name is retrograde but not inverted, and neither matches the obverse impression in West (if that is from the Eanred coin and not one of the others from the group it serves to illustrate).

46. **Hyssa**. Lunettes (c) or (d). N 423. +BVRGRED REX / HYTTA / MON / ETA. N 423. PH 247/12 and 260. Not traced.

The above reverse reading is from PH 247, here, unusually, better than PH 260 which has MYLKTA. Fountaine (F III, 23) is type (d) but is probably not a Cotton coin.

47. **Tata**. Lunettes (c) or (d). N 426. +BVRGRED REX m / +TATA / MON / ETA. PH 247/9 and 259. Not traced.

Fountaine (F III, 4) is type (c), but is probably not a Cotton coin. The Fountaine coin has a colon before MON, absent in PH, but this is not necessarily diagnostic as PH does not record normal punctuation here.

48. **Wine**. Lunettes (c). N 425. +BVRGRED REX M / VVHNE / MON / ETA. PH 247/11 and 259, S 308. This coin is possibly *SCB* 2 (Glasgow), no. 377, ex Hunter 1783.

Reading above follows PH 247; PH 259 dittoes M (in error) after REX. Speed (S 308) has + instead of M after REX, but this has been overlooked rather than postulate that Cotton had a second specimen. There is no coin of Wine in West 1744 so, unless West obtained it between 1744 and his death, Hunter is likely to have acquired it from another source.

EAST ANGLIA

In PH the second letter of the kings' name is transcribed variously as a D, a letter closer to *thorn* or, more usually, a rounded or pointed P; here the Roman letters D or P are used throughout. The Ns are sometimes retrograde or H, but all appear here as normal Ns or H. Sometimes it is possible only to adumbrate the legends as transcribed in the manuscripts.

ATHELSTAN, c.825-45

49. **Anonymous**. N 439. Pa VI, 2. +PEEGSTAN / +REX ·A·NG. PH 244. P 13/3 (wt 21 gr). This coin is *BMC* no. 20.

50. **Rernher (Regenhere)**. Pa II, 1. N 444. +EPELSTNI A / +ERNNPER. PH 244 and 250/128. P 13/1 (wt 22 gr). This coin is *BMC* no. 15.

51. **Rernher (Regenhere)**. N 444. Pa I, 1. +EPELSNI / +RERNNER. PH 244 and 250/127. This coin is probably *BMC* no. 14, ex Tyssen 1802, from West (1744, impressions).

In *BMC* no. 14 and West the second N of the moneyer's name is retrograde, but in both PH entries it is normal, probably in error.

52. **Rernher (Regenhere)**. N 444. cf. Pa I, 1. +EPEF VTHTL / +RE MHE+ HM. PH 244. Not traced.

The third letter of the reverse is transcribed as a sort of M with a bar across the base of the right-hand upright. The only coin of the moneyer and type other than no. 51 noted by Pagan (1982, 62) is Dimsdale 1824, 214. It is not fully described in the sale catalogue so the identification is uncertain and the Cotton specimen could be a different coin.

53. **Eadgar**. N 435. cf. Pa I, 1. +EPELSTAH REX / +EADGAR MOH. PH 244 and 250/122. Not traced.

PH 244, described by Peiresc as *crassissime sculpta*, has the L, T, A and R in the king's name inverted and PH 250 has the complete obverse legend retrograde but no letters inverted and omits the G on the reverse. The only coin of this moneyer and type recorded by Pagan 1982, 58, is *BMC* no. 4, ex Tyssen 1802, which is in rough style, but has EPELSTAH RG with the letters normally orientated. The Cotton coin appears to be missing.

54. **Eadgar**. N 445. Pa I, 1. +EPELSTAN RE / +EADGAR MONE. PH 244 and 250/131. P 13/2 (wt 20½ gr). This coin is *BMC* no. 6.

PH 250 has REX, both PH have a bar through the forward limb of the N.

55. Eadnoth. N 440. Pa III, 1. +EDELSTANI / E·ADNOD MD. P 13/5. This coin is *BMC* no. 9.

Pegge shows the first four letters of the king's name individually reversed, whereas the complete legend is retrograde on *BMC* no. 9. This coin may be represented by F II, 22, which shows the reverse rather than the obverse legend retrograde, a form not recorded on any coin in Pagan 1982, 58–9.

56. Eadnoth. N 446/1. Pa I, 1. +EPELSTANI. / +EADHOD MON. PH 244 and 250/130. P 13/4. This coin is *BMC* no. 7.

57. Torhthelm. N 440. Possibly Pa VI, 1 or II, 1. +EDELSTANI / +TORHTELM. PH 244 and 250/129. This coin is possibly *BMC* no. 16 or 17.

The PH transcriptions include no punctuation, but this cannot be relied upon as it is usually omitted in this series of entries. If the Cotton coin did in fact lack punctuation then *BMC* no. 16, ex Tyssen 1802, is a possibility, but if it did have punctuation *BMC* no. 17, ex Bank of England 1877, ex Robert Austen (d.1797), from West (1744, impressions) is likely. Other Cotton coins reached both these collections.

58. Torhthelm. N 440. Pa I, 1. EDELSTANI / ORTHELM. PH 244 and 250/126. P 13/6 (wt 21½ gr). This coin is *BMC* no. 18.

ÆTHELWEARD, c.845–55

The coins of this East Anglian king, unknown from the historical records, are attributed by Peirese in PH 256, with reservations, to Æthelward (*recte* Æthelwald) Moll of Northumbria and in PH 257, again with reservations, to a king of Mercia (perhaps intending Æthelred d.716?).

59. Æthelhelm. N 453. E·DELPA RD REX / AEDELNEM. PH 250/132 and 256. F II, 3, D'E. Not traced.

PH has AEDELNOEL M. Depending on the form of punctuation, if any, there are several candidates, but none with a pedigree before the mid-nineteenth century except Ruding pl. 26, 1 (no weight), shown with an unbarred A in the king's name, from the collection of Isaac Rebello (d.1803). *BMC* no. 23 (with punctuation) ought to be ruled out because it sits on a ticket sourcing it to the Gravesend hoard of 1838, and its details conform to those given in the accessions register for one of the coins from that find, but no weight is given. It does, however, lack the silvery appearance of Gravesend coins generally, having a uniformly black patina usually indicative of Cotton coins (although not exclusively). The Gravesend coin was probably disposed of as a duplicate.

60. Eadmund. N 450. Pa II, 1. AE·DELVVEARD REX / EAD·MVND MO (runic O). PH 250/134 and 257. P 7/2 (wt 21 gr). S 299. This coin is *BMC* no. 29.

PH 250 omits the V in the moneyer's name and mistranscribes the runic O as Roman N.

61. Eadmund. N 450. Pa I, 1. AE·DELVVEARD REX / EADMND MN. PH 250/135. F II, 2, D'E. This coin is probably *BMC* no. 28 (chipped), ex Tyssen 1802, from West (1744 impression of rev. only).

PH 250/135 does not transcribe the legends, but just dittoes the previous coin (including the mistakes noted) and, as is normal practice in this list, includes no punctuation, so the absence of the trefoil of pellets after the MO does not rule out *BMC* no. 28. Pagan 1982, 69 mistranscribes the West specimen as having a single pellet after the MO and therefore does not equate it with *BMC* no. 28, but the West coin does have a trefoil of pellets and is chipped at the same place.

62. Eadmund. N 450. Pa –. AE·DELVVEARD R / CEADMVND MO (square C, runic O). P 7/1 (wt 20½ gr). Not traced.

The contraction R is not recorded in Pagan 1982 for this reign, but there is no reason to reject Pegge's transcription. The square C is a misinterpretation of the initial cross-on-step motif. D&S 1954 identified P 7/1 with *BMC* no. 28, but the obverse legend of the latter reads REX and its weight is recorded in *BMC* as 19.3 gr (see also at no. 61). Although Gifford noted that he had transferred into the British Museum this coin as well as the other by the same moneyer listed by Pegge (no. 60), no coin with this obverse reading was included in *BMC* in 1887. It had possibly been disposed of as a 'duplicate'. Pagan 1982 does not list this second Cotton/Pegge coin individually, but it may be one of those in sales where full details for comparison are lacking.

63. Raegenhere. N 450. Pa I, 1. AE·DELVVEABD REX / RAEXENE BE m (runic G). PH 250/136 and 257. F II, 1. This coin is probably *BMC* no. 34, acquired before 1812.

PH 257 attributes this coin with reservations to Mercia and PH 250 reads ENNEBEM RAEX. The end of the obverse legend was read in Pagan 1982 as RD, but can be interpreted as REX as in PH and *BMC*.

64. Twicga. N 454. Pa III, 1. E·DELVVEARD REX / TPICCA MON. PH 250/133 and 257. This coin is probably Ryan 1952, 655, from Devonshire 1844 (1729), 8.

Attributed in PH 257 with reservations to Mercia. The pellet before the A of the moneyer's name identifies it as the Ryan coin.

EDMUND, 855–69

65. Eadmund. N 456. Pa I, 1. EADMVND REX / EADMVND MO (runic O). PH 244 and 248/40. P 14/1. S 365, F V, 22, D'E. This coin is *BMC* no. 59.

On PH 244 this coin appears in a short section headed *Nummi Saxonici* and Peirese comments that, although their older, much larger, lettering does not allow this coin and those of Athelstan (nos 49–54 and 56–8 above) to be attributed to Edmund and Athelstan of England (reigning in the tenth century), it is not easy to place them.

66. Eadwald. N 456. Pa I, 1. EADMVND REX Alpha / EADPALD MON cross and pellets. P 14/2. This coin is *BMC* no. 62.

ST EDMUND, c.895–c.910

67. Elismus. N 483. +SCEADIIYNE / +ELISMYSAAO. P 24/2. This coin is *BMC* no. 385.

Pegge comments 'ye last E in the obverse may be an R'.

68. Eura. N 483. +SYCFRDNI'1 / EVVRAM HO. S 301. This coin is *BMC* no. 404, acquired before 1838.

VIKING INVADERS

ST MARTIN OF LINCOLN, c.925

69. Anonymous. N 486. SCIM / ARTI / +LINCOLA CIVIT. P 24/1. This coin is *BMC* no. 698.

ST PETER OF YORK, period c.905-c.910

70. Early issue. N 551. S-CPE / TRI MO quatrefoil of pellets above and below / +EBORACI CIV. P(G) 24/3. This coin is *BMC* no. 1125.

71. Early issue. N 551. +I/SCI PET/R / +EBORACE CI. PH 245. This coin is probably *SCBI* (Oxford) 9, no. 228, ex Bodleian, but not in Wise 1750.

The drawing of the full obverse in PH and the trefoil of pellets at the end of the reverse legend identify the Cotton coin with Oxford no. 228 (Ruding pl. 29, 27, Appendix) and not no. 227 as stated in *SCBI* 9. (Pl. 27, 10-12)

ANLAF SIHTRICSSON, 941-4/5

72. Farman. N 540. AHLAF CVNA(inverted)NCU / FARAN HONETA. PH 245 and 247/4. S 364. F III, 2. This coin is probably *BMC* no. 1091 / *BMS* no. 1250, acquired before 1812.

PH 245 omits the M in the moneyer's name in error; it is included as H in PH 247. U denotes a squared-cornered motif occupying only the upper half of the height of the letters. F III, 2 is probably *BMC* no. 1091 despite the omission of the gamma-like motif at the end of the obverse legend.

73. Rathulf. N 542. ANLA(inverted)F CANAC / EA ðVLF MONETA. PH 245 and 247/5. This coin is probably *BMC* no. 1097 / *BMS* no. 1256, acquired before 1783.

ERIC BLOODAXE, 952-4

74. Aculf. N 550. ERICREX / +A-CV-LFMO-N. P 6/1 (wt 18 gr). F VIII, 2, D'E. This coin is *BMC* no. 1111 / *BMS* no. 1277.

This coin is probably F VIII, 2 despite a minor difference in stopping.

WESSEX

BEORHTRIC, 787-802

75. Ecghard. cf. N 558. +BEOR-M-IRIC REX / +E E L-HEA R d. . S 299. F III, 1, D'E. Not traced.

The Speed woodcuts appear to show punctuation as above, but it is uncertain. Two coins of the reign with a cross type reverse are now known: *BMC* East Anglia, no. 36 which can be ruled out as a later provenanced coin, and *SCBI* 2 (Glasgow), no. 528, ex Hunter, which has a single pellet in each angle (as North 558), while S 299 and D'E show three. West 1744 does not include such a coin. Fountaine read the coin as Speed did, but makes a mistake in the moneyer's name with F for E in HEARD. D&S 1954 considered that the differences could be overlooked and identified S 299 with the Hunter coin, but Blunt 1958, 129-131, considered them too material and preferred to conclude that the Speed/Cotton coin was now missing, and this is accepted here.

Ecghard. See Appendix, viii.

ECGBERHT, 802-39

76. Deibus. Canterbury. N 573. ECGBEARHT REX / DEIBVS MONETA. PH 250/107 and 263 (d). S 348. F VIII, 2. This coin is probably represented by a fragmentary coin in the British Museum.

The Canterbury monogram in the centre of the reverse is identified in PH 263 as Ecgbearht's. Speed omits the I on the reverse in error. D&S 1954 suggest with a query that the museum coin was probably that illustrated by Speed and presented to the British Museum by Taylor Combe's widow. He did not mention it in his lists. The coin has the typically black patina of coins from the Cotton collection. It is very fragile and had probably deteriorated between Speed seeing it and the decision to exclude it from *BMC* in 1893.

77. Diormod. Canterbury. N 562. +HECBEARHT REX / +DIORMOD MONET. P 8/1 (wt 23 gr). Not traced.

This coin was transferred into the museum by Gifford in 1756, but does not appear in *BMC*. D&S 1954 quote C.E. Blunt's suggestion that this coin was the one drawn by Dymock, but in his later paper on the coinage of Ecgbearht in *BNJ* 28 (1958) at p. 468 he mentions the coin in the Dymock manuscript but gives its weight as '?' and does not mention any connection with Cotton. In *SCBI* 2 (Glasgow), published in 1961, C.E. Blunt is the source of the suggestion that no. 529 is 'probably one of the missing Cotton coins', but the Glasgow specimen (acquired in 1877 from the Wigan collection, essentially formed before 1869) is an intact coin weighing only 20.7 gr, so the identification is unlikely unless Pegge's usually reliable weighing was here at fault.

78. Tidbearht. N 573. +ECGBEARHT E / TIMBEARHT. P 8/2 This coin is *BMC* no. 11 (chipped).

Pegge notes 'rudy & base mettle'.

ÆTHELWULF, 839-58

79. Anonymous. Rochester? N 597. AE ðELVULF REX / OCCIDENTALIVM. PH 250/137 and 138 and 264. S 350. Not traced.

The Æthelwulf included in Speed's first edition was omitted from the next in 1623 and a Ludica (no. 35) not present in 1611 added. The Hunter coin *SCBI* 2 (Glasgow), no. 547 was the only one of the type known to Taylor Combe in 1812, but it reads RE not REX and there are other eligible coins known.

80. Osmund. Canterbury. N 596. $\text{ÆD}+\text{ELVVLF REX} / \text{OSMVND MONETA}$. PH 250/138 and 264. P 9/1. Not traced. PH 250/138 does not read the moneyer's name, but says it is the same type as the previous entry, which identifies it with PH 264. P 9/1 reads $+\text{E ELVVLF REX} / \dots \text{MOSM} \dots$; 'base mettle and broken'; Gifford annotates 'OSMVND. in y^e centre SAXONVM'. Put into y^e museum'. The descriptions and lack of one suggest that this was a badly chipped or fragmentary coin. It does not appear in *BMC* and is not in the museum now, so it had probably been disposed of as a duplicate. RN records but does not illustrate or give a weight of a coin in the BM reading $\text{OSMVNDMOI}[\]$ which is almost certainly the Cotton coin.

ALFRED, 871–99

81. London. London monogram. N 644. ÆLFRED RE , X below / London monogram. PH 247/1 and 264. S 356. F I, 9. Not traced.

There are several candidates.

82. Cuthberht. Two-line. N 637. $\text{ÆL FR ED RE X} / \text{CVDB/ERNT}$. PH 247/3 and 264. F I, 1. This coin is probably *SCBI* 2 (Glasgow), no. 565, ex Hunter 1783, from West (1744, impressions).

83. Goda. Two Line. N 637. $\text{EL FR ED RE X} / \text{GOD/A M}$. PH 247/2 and 264, P 9/1 (wt 23½ gr). This coin is *BMC* no. 325.

EDWARD THE ELDER, 899–924

Portrait

84. Ealhstan. N 651, *CTCE* no. 18. $+\text{EADVVEARD REX} / \text{EALHS/TAN MO}$. PH 248/44 and 266. P 10/1 (wt 25 gr). This coin is *BMC* no. 78.

85. Framwis. N 651, *CTCE* no. 22. $+\text{EADVVEARD REX} / \text{FRANV/VIS MO}$. PH 248/45 and 265. P 10/2 (wt 24½ gr). F VII, 53, D'E. This coin is *BMC* no. 79.

86. Grimwald. N 651, cf. *CTCE* no. 26. $+\text{EADVVEARD REX} / \text{GRIMV/ALD MO}$. PH 248/46 and 266. P(G) 10/1b (wt 24½ gr). S 373. This coin is *BMC* no. 82.

PH 248 has GRIMEALD. The *CTCE* listing (not a corpus) omits *BMC* no. 82.

87. Heremod. N 651, *CTCE* no. 28. $+\text{EADVVEARD REX} / \text{HERE/MOD M}$. PH 248/43 and 265. P 10/3 (wt 24 gr). S 373, F VII, 55, D'E. This coin is *BMC* no. 84.

88. Blundered. N 651 (East Anglian). $+\text{EADVVEARD REX} / \text{IIEIEIP/IIIEIEK}$. PH 248/49 and 266. P 10/5 (wt 25 gr). This coin is *BMC* no. 83.

89. Blundered. N 651 (East Anglian). $+\text{EADVVEART} / \text{NIEICO/NIOICE}$, Ns retrograde. PH 248/47 and 265, P 10/4 (wt 22½ gr). This coin is *BMC* no. 86.

90. Blundered. N 651 (East Anglian). $+\text{EADVVEARD REX} / \text{NEIOIR/OIEICI}$. PH 248/48 and 265, P 10/6 (wt 22 gr). This coin is *BMC* no. 87.

91. Blundered. N 651 (East Anglian). $+\text{EADVREXRDEOX}$, retrograde / IIDRI/IRICI . P 10/7 (wt 19 gr). This coin is *BMC* no. 92.

Building types

92. Cuthberht. N 665, *CTCE* no. 317. $+\text{EADVVEARD REX} / \text{CVDBERHT}$. PH 248/56 and 265. F VII, 58. Not traced.

PH 248 has CVDBEARHT. There are two equally likely candidates, die-duplicates (without A in the moneyer's name) in the corpus in *CTCE*: British Museum, ex Lockett 1, 526, ultimately Bootle (ms list in British Museum) 1802 (formed by Captain Robert Bootle, 1693–1758), and *SCBI* 2 (Glasgow), no. 591, ex Coats 1924, possibly Dimsdale 1824, 611 (*CTCE* notes that the obverses of nos 591 and 592 are transposed in the plate). Both coins could have originated in the early Edward the Elder hoard from which many of Cotton's coins derive and one of them is likely to have been the Peiresc coin.

93. Eadmund. N 666, *CTCE* no. 320. $+\text{EADVVEARD REX} / \text{EADVMND}$. PH 248/55 and 265, P 12/31 (wt 26 gr, corrected by Gifford to 25½ gr). F VII, 57. This coin is *BMC* no. 109.

PH 248 has EADMVND.

94. Irfara. N 666, *CTCE* no. 322. $+\text{EADVVEARD REX} / \text{IRFARA MO}$. PH 248/57 and 265, P(G) 11/25 (wt 24½ gr, corrected by Gifford to 18 gr). This coin is *BMC* no. 110.

95. Wulfgar. N 667, *CTCE* no. 342. $+\text{EADVVEARD REX} / \text{VVFLGAR}$. PH 248/53 and 265, P 12/33 (wt 24½ gr). F VII, 56. This coin is *BMC* no. 111.

Another coin of Wulfgar follows at PH 248/54 (also in the other version of the Tate list in the British Library), but only one appears in PH 265. Various possibilities were considered; simple dittography is unlikely here and the most straightforward is that Cotton had two coins when Tate listed them, but disposed of one of them before Peiresc's visit. To retain a near duplicate would be at variance with Cotton's normal practice, as shown by his one-of-each selection across several hoards of this period and other sources from which the coins in his collection apparently derive (*CTCE*, 41–2).

Wulfgar. See Appendix, ix.

Hand types

96. Alhstan. N 662, *CTCE* no. 343. $+\text{EADVVEARD REX} / \text{ALHSTAN MO}$. PH 248/50 and 265, P 10/11 (wt 21½ gr). F VII, 59. This coin is *BMC* no. 106.

97. Athulf. N 663, *CTCE* no. 344. $+\text{EADVVEARD REX} / \text{AVÐLF M}$. PH 248/51 and 265, P(G) 10/14b (wt 24½ gr). This coin is *BMC* no. 107.

Ð retrograde in PH 265. PH 248 has MELÐVV.

98. **Deormod.** N 664, *CTCE* no. 345. +EADVVEARD REX / DEORMOD M. PH 248/52 and 265, P 10/12 (wt 24 gr). This coin is *BMC* no. 108.

99. **Fugel.** N 664, *CTCE* no. 347. +EADVVEARD REX / FVGEL. PH 248/60 and 265, P 10/13 (wt 24½ gr). Not traced. (Pl. 27, 13–14)

This 'unique' coin was said to have been incorporated into the British Museum in 1756 by Gifford, but is not in *BMC* 1893. It is likely to have been stolen, but has not been noted anywhere from sight since 1756. This coin is not listed in *RN* and, as Hugh Pagan remarks (*pers. comm.*), Ruding would certainly have mentioned it if it had been in the *BM* c.1795.

Floral types

100. **Boiga.** N 659, *CTCE* no. 330. +EADVVEARD REX / BOIGA. PH 248/60 and 266, P 11/26 (wt 25 gr). F VII, 61. This coin is *BMC* no. 99.

101. **Buga.** N 660, *CTCE* no. 327. +EADVVEARD REX / BVGA. PH 248/59 and 266, P 12/32 (wt 24½ gr). This coin is *BMC* no. 100.

102. **Heremod.** N 658, *CTCE* no. 341. +EADVVEARD REX / HEREMOD. PH 248/61 and 266, P 11/19 (wt 23½ gr). F VII, 60. This coin is *BMC* no. 102.

103. **Iofermund.** N 658, *CTCE* no. 339. +EADVVEARD REX / IOFERMND. PH 248/62 and 266, P 11/24 (wt 25 gr). This coin is *BMC* no. 104.

104. **Osulf.** N 659, *CTCE* no. 329. +EADVVEARD REX / OZVLF. PH 248/58 and 266, P 11/28 (wt 25 gr, corrected by Gifford to 24½ gr). This coin is *BMC* no. 105.

Star (rosette) type

105. **Brec.** N 657, *CTCE* no. 325. +EADVVEARD REX / BRE - CEX. PH 249/74 and 266. This coin is probably *SCBI* 2 (Glasgow), no. 585, ex Hunter.

The pellet read in the moneyer's name in both PH 249 and 266 suggests the Glasgow coin, where the other pellets forming a central cross are less clear than on *BMC* no. 97, ex Devonshire 1844 (1729), 174, which is the only other known coin which is eligible.

Rose type

106. **Eicmund.** N 655, *CTCE* no. 314. +EADVVEARD REX / EICM / VND MON. PH 249/85 and 266, P 12/35 (wt 25 gr). This coin is *BMC* no. 112.

One-line type

107. **Athulf.** N 656, *CTCE* no. 336. +EADVVEARD REX / ÆÐVLF M. PH 249/77 and 266, P 12/34. (wt 25½ gr). This coin is *BMC* no. 94.

In PH 266 the moneyer's name shown between two plain straight lines.

108. **Edelard (Æthelgar?).** N 656, *CTCE* –. +EADVVEARD REX / EODLARD. PH 249/79 and 266. Not traced.

The readings above are from PH 266 and show the letters of the moneyer's name in a single line, without defining lines, with a cross above and below. PH 249 has EDELARD. The moneyer's name is not listed in *CTCE* for Edward the Elder, but the form 'Æthelgar' is known from Athelstan onwards. This coin now appears to be lost.

Two-line type

109. **Abba.** N 649, *CTCE* no. 49. +EADVVEARD REX / ABBA / MON. PH 249/80 and 266, P 11/27 (wt 25½ gr, corrected by Gifford to 25 gr). This coin is *BMC* no. 2.

110. **Æthelstan.** N 649, *CTCE* no. 59. +EADVVEARD REX / ÆÐELS / TAN MO. PH 249/82 and 266, P 10/9 (wt 24 gr). This coin is *BMC* no. 5.

Only this coin appears in the Peirese inventory, but the Tate list includes a second coin of this moneyer PH 249/65 spelt ÆÐELSTAN and with the contraction mark over the MO absent. These are differences which would normally be overlooked and these two coins are separated in the list. This may therefore be a case of dittography, but it seems safer to treat the second coin like the Wulfgar (at no. 95) as possibly a duplicate or near-duplicate coin disposed of by Cotton between the compilation of the Tate and Peirese lists.

Æthelstan. See Appendix, x.

111. **Æthelwine.** N 649, *CTCE* no. 61. +EADVVEARD REX / ÆÐELV / VIN MO. PH 249/67 and 266, P 11/30 (wt 23½ gr). This coin is *BMC* no. 6.

112. **Æthelwulf.** N 649, *CTCE* no. 62. +EADVVEARD REX / AEDEL / VVLF MO. PH 249/73 and 266. This coin is probably *BMC* no. 9, acquired before 1838.

PH 249 has Æ and alone has a contraction mark over the O. *BMC* no. 9 was the only coin of this moneyer known to *CTCE*.

113. **Beahstan.** N 649, *CTCE* no. 85. +EADVVEARD REX / BEANS / TAN MO. PH 249/81 and 266, P 11/17 (wt 25½ gr). F VII, 71. This coin is *BMC* no. 17.

PH 249 has (correctly) H for N.

114. **Beornere.** N 649, *CTCE* no. 95. +EADVVEARD REX / BEORN / ERE MO. PH 249/66 and 266, P 11/20 (wt 24½ gr). This coin is *BMC* no. 18.

115. **Beornwald.** N 649, *CTCE* no. 103. EADVVEARD REX / BEORNV / VALD MO. PH 249/63 and 266 P(G) 10/8b (wt 25 gr). F VII, 68. This coin is *BMC* no. 20.

116. **Brece.** N 649, *CTCE* no. 119. (+EADVVEARD REX) / BRE.CE+. PH 249/71 and 266, P 10/14 (wt 25 gr). This coin is *BMC* no. 23.

- 117. Burhelm.** N 649, cf. *CTCE* no. 121. +EADVVEARD REX / BVRH / ELM MO. PH 249/83 and 266, P 11/21 (wt 24½ gr). This coin is *BMC* no. 25.
- 118. Eadmund.** N 649, cf. *CTCE* no. 163. (+EADVVEARD REX) / EADMV / ND MO. PH 249/69 and 266, P 11/25a (wt 24½ gr). F VII, 69. Not traced.
Gifford does not specifically note that this coin is absent, but he inserts another coin alongside to re-use its number, which he does in other cases where he notes that the original coin is missing.
- 119. Eadred.** N 649, *CTCE* no. 166. (+EADVVEARD REX) / EADE / RED IO. PH 249/68 and 266, P 11/22 (wt 20½ gr). This coin is *BMC* no. 34.
- 120. Iva.** N 649, cf. *CTCE* no. 220. (+EADVVEARD REX) / IVA MO / ETA+. PH 249/64 and 266, P 11/29 (wt 24 gr, corrected by Gifford to 23 gr). This coin is *BMC* no. 47.
- 121. Megenfreth.** N 649, *CTCE* no. 234. (+EADVVEARD REX) / IIEIEIIF / RED IIO. PH 249/70 and 266, P 11/23 (wt 24½ gr). This coin is *BMC* no. 3.
- 122. Raegenulf.** N 649, cf. *CTCE* no. 248. (+EADVVEARD REX) / RÆGEN / VLF MO. PH 249/72 and 266, P 10/10 (wt 24 gr). F VII, 64, D'E. This coin is *BMC* no. 52.
PH 249 has E for Æ.
- 123. Waleman.** N 649, *CTCE* no. 283. (+EADVVEARD REX) / VVALL / MAII MO. PH 249/78 and 266, P 11/15 (wt 26 gr). This coin is *BMC* no. 57.
- 124. Warmer.** N 649, cf. *CTCE* no. 287. (+EADVVEARD REX) / VVAR / MER MO. PH 249/76 and 266, P 11/18 (wt 23½ gr). This coin is *BMC* no. 58.
- 125. Wulfred.** N 649, *CTCE* no. 306. (+EADVVEARD REX) / VVER / RED MO. PH 249/75 and 266, P 11/16 (wt. 20 gr). This coin is *BMC* no. 68 (chipped).
BMC reads VVEFRED. This coin is possibly irregular.
- 126. Blundered.** N 649, *CTCE* —. +EVEARD REX / ER (inverted) LDO / ARE PH 244 and 249/84, P 10/8. Not traced.
P 10/8 agrees with the PH 244 reading above except for RE+, but PH 249 reads the reverse as E-ÐLDO / ARE. This coin was incorporated into the British Museum by Gifford in 1756, but is not in *BMC*.

ALL ENGLAND

ÆTHELSTAN, 924/5–39

Portrait type

- 127. London. Biorneard.** N 675. +ÆÐELSTAN REX / +BIORNEARD MO LOND CI. PH 250/123 and 266, P 13/11, S 363, F II, 4, D'E. This coin is *BMC* no. 65/*BMS* no. 129.
PH 250 reads mint signature as LOND C'.
- 128. Norwich. Manticen.** N 675. +ÆÐELSTAN REX / + MANTICEN. MON. ORVII. PH 250/124 and 266, P 13/12 (wt 22½ gr). This coin is *BMC* no. 76/*BMS* no. 146 (chipped).
PH 250 reads the reverse as HANTILEH.MOMO.

Building type

- 129. York. Regnald.** N 684. ÆÐELSTAN REX / REGNALD MON. PH 250/125 and 266, P 13/9 (wt 22½ gr). F II, 13. This coin is *BMC* no. 6/*BMS* no. 237.
PH 250 shows trefoil of wedges after REX.

Circumscription Cross

- 130. York. Regnald.** N 672. +ÆÐELSTAN REX TO BRIT / +REGNALD MO EFORPIC. P 13/8, D'E. This coin is *BMC* no. 13/*BMS* no. 107.
- 131. Megenfreth.** N 671. EDELSTAN RE+ A+ORV / +MERENFRED MOT (first R inverted). P 13/13 (wt 22½ gr). Not traced.
This coin was weighed despite being described as 'broken', so was probably only slightly chipped. It was missing by 1756. This is not *SCBI* 2 (Glasgow), no. 623, where the moneyer's name is in the genitive.

Circumscription rosette/cross

- 132. Chester. Eadmund.** N 682. ÆÐELSTAN REX TO BRN / +EADMND MON LEGEC. P 13/10 (wt 24½ gr). This coin is *BMC* no. 58/*BMS* no. 179.
The omission of the V in the moneyer's name is an error by Pegge.

Circumscription rosette

- 133. Chester. Efrard.** N 680. ÆÐELSTAN REX TO BR / +RARD MO LEIGECE. P 13/7 (wt 24½ gr). This coin is *BMC* no. 48/*BMS* no. 186.

EADMUND, 939–46

Portrait

- 134. Norwich. Eadgar.** N 698, *CTCE* no. 251. +EADMVND REX / +EADGAR. MO NOR-ÐPT. PH 248/39 and 261, S 381, F V, 1, D'E. Not traced.
R.P. Mack, *BNJ* 28 (1956), 411–12, identified a recent purchase from Spink with no previous recorded pedigree as the Cotton specimen, but in 1973 in *SCBI* 20 (Mack collection), xii, in a note to no. 786, he records a second example from the Fred Baldwin collection. Either could be the Cotton specimen. It may be added that these two coins are possibly those attributed in *Britannia* 1695 (pl. VI) to the Cotton collection and William Charleton (also known as Courten,

d.1702). The latter bequeathed his coins to Sir Hans Sloane, whose material was among the foundation collections of the British Museum in 1753, but there are no inventories to document any transmissions. The Cotton coin had gone from his collection before 1748 and there is no evidence that the Charleton coin even got to Sloane. Neither reached the British Museum.

EADRED, 946–55

Portrait

135. Unbein. N 713, *CTCE* no. 266. +EADRED REX / +UNREIN MONETA. PH 248/41 and 261, P 15/1 (wt 18½ gr). S 367, F VI, 5. This coin is *BMC* no. 119/*BMS* no. 714.

Two line

136. Ælfred. N 707, *CTCE* no. 135. +EAREOM RE+ / ELFR/ES MOT. P 25/3 (wt 17 gr). This coin is *BMC* no. 37/*BMS* no. 611.

The obverse is irregular.

137. Bese. N 706, *CTCE* no. 14. +EADRED REX / BESE/MONT. P 15/3 (wt 21½ gr). This coin is *BMC* no. 21/*BMS* no. 507.

138. Eardulf. N 711, *CTCE* no. 222. +EADRED REX / EARO/YLE M. P 15/4 (wt 22½ gr). This coin is *BMC* no. 34/*BMS* no. 681.

This coin is probably a CC/HR 4 mule and is the only example known to *CTCE*.

139. Frothric. N 708, *CTCE* no. 196. +EADRED REX / FROÐ/RIC MO. P 15/5 (wt 20 gr). This coin is *BMC* no. 46/*BMS* no. 656.

140. Theodmæ. N 706, *CTCE* no. 98. +EADRED REX / ðEODM /AER M. PH 248/42 and 261, P 15/2. F VI, 10. This coin is *BMC* no. 96/*BMS* no. 585.

Three pellets before and one after the A in the king's name.

141. Blundered. N 707, *CTCE* —. +EADREDYER / TYLEY/TOMXERD; some letters on both sides are retrograde and inverted. P 15/6 and P 25/3 (wt 17 gr). This coin is *BMC* no. 79/*BMS* no. 676 (chipped).

Gifford annotated P 15/6 but not P 25/3 (certainly *BMC* no. 79) as transferred into the museum. Pegge seems to have entered the same coin twice, once under Edred with no details and no weight and again under *Nummi incerti* with the blundered inscription and weight.

EADWIG, 955–9

Two line

142. Heriger. N 724. BLS 774. +EADWIG REX / HERIG/ER MO. PH 250/105 and 261, P 16/1. S 368. This coin is *BMC* no. 29/*BMS* no. 774 (chipped).

Described in P as 'base mettle & broken'. The coin shown in S has some differences, but Pegge notes that it is the same coin.

EADGAR, 959–75

Circumscription rosette

143. Thurmod. N 758. *CTCE* no. 341. +EADGAR REX TO B / +ÐVRMOD MONET, A above. P 17/1 (wt 20½ gr). F V, 7. This coin is *BMC* no. 203/*BMS* no. 1066.

Reform

144. Northampton. Clym. N 752. +EADGAR REX ANGLORX / CYLH MO HANTVN. PH 248/38 and 261, P 17/3 (wt 23 gr). This coin is *BMC* no. 15.

145. Northampton. Leofsig. N 752. +EADGAR REX ANGLORX / +LEOFSIGE MO HAMT. PH 248/37 and 261, P 17/2 (wt 20 gr). S 369, F V, 3. This coin is *BMC* no. 16.

ÆTHELRED II, 978–1016

The legends follow the Peiresc inventory as usual; the Tate list normally has ÆÐELRÆD but other differences in the diphthongs in the king's name in the Tate list are not normally detailed.

First Hand

146. Ipswich. Leofric. N 766. +ÆÐELRED REX ANGLOR / +LEOIRIC MO GIPIES. PH 250/120 and 262. Not traced. PH 250 has GIPIES.

147. Launceston. Brun. N 766. +ÆÐELRED REX ANGLOR / +BRVN MO LANSTF. PH 150/118 and 262. This coin is probably British Museum, ex Montagu 1888, 770, ex Warne 1889, 181 (two coins).

The British Museum coin is the only known example. This coin was identified as Lancaster mint in the Warne sale.

148. Norwich. Folceard. N 766. +ÆÐELRED REX ANGLOR / +FOLCEARD MO NORÐ. PH 250/119 and 262, P 18/1 (wt 26 gr). S 375, F I, 13. This coin is *BMC* no. 289.

149. Wilton. Boiga. N 766. +ÆÐELRED REX ANGLOR / +BOGIA MO PLTVNE. PH 250/116 and 262. Not traced.

The legends are the same on PH 250, except the king's name ends RÆD. No coin of this moneyer and type combination was known to Short, *NC* 1948, 169–87.

150. Winchester. Frythemund. N 766. +ÆÐELRED REX ANGLOR / +FAVÐEMVND MO PINE. PH 250/121 and 262. This coin is probably *BMC* no. 358, acquired before 1795.

PH 250 has +FAYÐMVND MO PIN with a pellet following the PIN like *BMC* 358. RN records, but does not illustrate, a coin in the BM of this description weighing 25 gr which must be *BMC* 358 as its weight is the same.

151. York. Oda. N 766. +ÆÐELRED REX ANGLOR / +ODA MONETA EPERRIC. PH 250/117 and 262, P 18/6 (wt 22½ gr). This coin is *BMC* no. 77. PH 250 has EPERPIC.

Second Hand

152. Norwich. Swyrtine. N 768. +ÆÐELRED REX ANGLOR / +SPRTINC MO NORÐ. PH 250/115 and 262, P 18/5 (wt 21½ gr). This coin is *BMC* no. 292.

Crux

153. London. Ealhstan. N 770. +ÆÐELRED REX ANGLOR / +EALNITAN MO LVN. PH 250/113 and 262, P 18/4. Not traced. PH 250 has RÆD and EALHZTAN; Pegge has EAHSTAN. This coin is noted as being put into the museum by Gifford, but is not in *BMC*. RN records, but does not illustrate, a coin of this type in the BM weighing 23½ gr which could be the Cotton coin.

154. London Lifing. N 770. +ÆÐELRED REX ANGLOR / +LIFINNG MO LVND. PH 250/112 and 262, P 18/7 (wt 24 gr). This coin is *BMC* no. 226.

PH 250 has LIFING.

155. Southwark. Godwine. N 770. +ÆÐELRED []NGLOR / G[]PINE MO SVÐBY. P 18/8. This coin is *BMC* no. 330.

Long Cross

156. London. Leofric. N 774. +ÆÐELRED REX ANGLOR / +LEOFRIC MO LVND. PH 250/114 and 262. This coin is possibly *BMC* no. 248, ex Tyssen 1802, ex Hodsoll 1794.

Helmet

157. York. Outhgrim. N 775. +ÆÐELRED REX ANGLOR / +ODGRIM MO EOFR. PH 250/111 and 262, P 18/3 (wt 23 gr). Not traced.

PH 250 has OÐERVM MO EOFR and P has OÐGRIM MO E. This was one of the coins in Pegge found to be missing by Gifford in 1756.

158. York. Wulfsgie. N 775. +ÆÐELRED REX ANGLOR / +PLEFZIGE MO EOFR. PH 250/110 and 262, P 18/9 (wt 19 gr). This coin is *BMC* no. 91.

Last Small Cross.

159. London. Wulfwine. N 777. +ÆÐELRED REX ANGLOR / +PVLVINE MO ON LVNDM. PH 250/109 and 262, P 18/2 (wt 17 gr). Not traced.

PH 250 has []LVNDM, suggesting the moneyer's name is not fully visible. This was one of the coins in Pegge found to be missing by Gifford in 1756.

CNUT, 1016–35

Quatrefoil

160. Lincoln. Bruntat. N 781. +CNVT REX ANGLO-M / +BRVN-AT MO ZINC. PH 248/30 and 267. Not traced.

PH 248 also shows part of the moneyer's name illegible.

Uncertain Cnut. See Appendix, xi.

HAROLD I AND HARTHACNUT, JOINT REIGN, 1035–7

HARTHACNUT

Jewel Cross

161. London. Brunman. N 808. +CNVT · RECX · / +BRVNHAH ON · LVND. PH 248/33 and 267, P 19/1. This coin is *BMC* Cnut no. 467.

162. Winchester. Ælfwine. N 808. +HARÐACNVT REX / +ELPINE ON ÐICE. PH 248/- and 267, P(G) 19/2b and P 21/2 (wt 17 gr). S 396, F VIII, 3. This coin is *BMC* Harthacnut no. 23.

PH 248 has PICE. David Symons (*pers. comm.*) does not accept that this coin could be of Worcester.

HAROLD I, 1037–40

The coin of Harold without a reverse reading at PH 250/142 is likely to be one of the following quoted just from the Peirese inventory.

Jewel Cross

163. Lincoln. Swafa. N 802. +HAROLD REX / +SWAFA ON · LINCOLN. PH 250/141 and 267, P(G) 20/9 (wt 18 gr) S 402, F VIII, 10. This coin is *BMC* no. 50.

P 20/6b is a Gifford ditto-graphy of P 20/9. Speed attributes this coin to Harold II, but PH 267 places it with coins of 'Harold' between Cnut and Harthacnut, showing that Peirese identified it correctly.

164. London. Leofwine. N 802. +HAROLD REX / +LEOPINE · ON LVNDE(3 pellets upright). PH 250/140 and 267, P 20/7 (wt 17½ gr). This coin is *BMC* no. 60.

BMC no. 60 has a colon after LVNDE.

165. Lydford (?). Vikn (Viking). N 802. +HAROLD REX / +VIKNC ON DIDASC. PH 267. Not traced.

The moneyer is known at Lydford and Worcester, but the mint signature suggests a misreading of LYDAFO. David Symons (*pers. comm.*) would not accept this as a Worcester coin.

166. Norwich. Ælfwald. N 802. +HAROLD REX / +ELFPARD · ON NOR. PH 250/139 and 267, P(G) 20/1b. This coin is *BMC* no. 82.

PH 267 has colon after NOR; *BMC* no. 82 has a single pellet and FFP in the moneyer's name.

Fleur-de-lys

PH 267 (in error) dittoes the REX reading of a Jewel Cross coin for all others of Harold I.

167. Cambridge. Ælfwig. N 810. +HAROLD REX / +HFDIN ON · PAN. PH 267, P 20/4. This coin is *BMC* no. 39.

P 20 has RECX and LVFPINE ON GRAN; *BMC* has ÆLFIG ON GRAN.

168. Lincoln. Swartine. N 810. +HAROLD REX / +SWARTINC ONIC. PH 267, P 20/2. This coin is *BMC* no. 53.

P 20 has OLINC.

169. Norwich. 'Atuwi'. N 810. +HAROLD REX / +ATVPI ON NORÐ. P 20/1a. Not traced.

This coin was missing on transfer to the British Museum in 1756.

170. Norwich. Manna. N 810. +HAROLDREX / +MANHA ON NORÐ. PH 267, P(G) 20/10. This coin is *BMC* no. 85.

171. Stamford. Godric. N 810. +HAROLD REX / +CO II II IC ON ST-. PH 267, P 20/6a (wt 18 gr). This coin is *BMC* no. 92.

172. Thetford. Ælfwine. N 810. +HAROLD REC+ A / +ELFPINE ON ÐEOÐ. PH 267, P 20/3 (not weighed) and 20/5 (wt 18½ gr). S 394, F VIII, 11. This coin is *BMC* no. 107.

Legends above follow P20/3; P 20/5 has HAROLD REC / +ELFPINE ON ÐEOÐ; PH 267 dittoes a previous legend HAROLD REX; *BMC* no. 107 is as above except D for the final Ð and weighs 18.2 gr. Pegge apparently records two coins of this moneyer, but Gifford, noting no coin missing, says 'The 3d & 5th are alike' and counts only one coin of Ælfwine in his total. Pegge was thus probably guilty of dittography during the process of ordering his notes. Cotton had probably owned just one coin.

173. Winchester. Wulfnoth. N 810. +HAROLD REX / +ÐVLNOP O : PINE. PH 267. Not traced.

Yvonne Harvey (*pers. comm.*) knows of only three coins, all in Scandinavian public collections. The Cotton coin appears to be missing.

174. York. Scula. N 810. +HAROLD REX / +SEVLH O:NNEOFER. PH 267, P 20/8 (wt 18½ gr). This coin is *BMC* no. 33.

HARTHACNUT, 1040–2

Arm-and-sceptre, June 1040–June 1042

175. Cambridge. Godwine. N 811. +CNVT · RECX / GODPINE ON GR·AT. PH 248/31 and 267, P 19/2a. S 390, F IV, 16. This coin is *BMC* Cnut no. 234.

PH attributes this coin to Cnut.

176. Hereford. Leofnoth. N 811. HAR·ÐCNV RE+/ +LEFNOO·Ð. PH 267, P(G) 21/3. This coin is *BMC* no. 6.

Inscriptions above from P(G); PH 167 dittoes a Harold obverse / +I · AHOO·ÐONIERE.

177. London. Lefstan. N 811. +HAR·ÐCNVT R / +LEFSTAN ON LVNDE. PH 248/- and 267, P 21/1 (wt 18½ gr). This coin is *BMC* no. 15.

Inscriptions above from P 21. PH 267 dittoes a Harold obverse and has LVNDE; but PH 248 has no colon. *BMC* no. 15 has HAR·Ð CNVTE with no colon after LVNDE.

178. Shrewsbury. Wulfmær. N 811. +CNVT RECX / PVLTMER ON NGCR. PH 248/32 and 267, P 19/3 (wt 17 gr). This coin is *BMC* Cnut no. 507.

PH attributes this coin to Cnut.

Uncertain coin of Harthacnut. See Appendix, xii.

EDWARD THE CONFESSOR, 1042–66

All the coins of this king on PH 261 are listed there under Edward the Martyr, perhaps following Cotton's attribution, but Peirese adds a marginal note that there is no little doubt concerning these and it would be preferable to attribute them to Edward the Confessor. Coins on PH 268 are correctly attributed. In both lists in Peirese many obverses are dittoes from earlier coins and are less reliable; Pegge entries for probably the same coins show up errors in the earlier listings.

Radiate Small Cross

179. York. Onolf. N 816. +EDPERD REX / VNLOF ON EOFRP. PH 249/97 and 261, P(G) 23/3 (wt 15 gr). This coin is *BMC* no. 256.

PH 261 has final P only dotted in; PH 249 has EOFRP, as *BMC* no. 256. PH 249 agrees REX only, but P(G) 23 has REX A as *BMC* no. 256.

Short Cross

180. Chester. Wyrin. N 818. +EDPERD REX / II·R IN ON LEIGEL. PH 249/100 and 261, P 23/17 (wt 15½ gr). This coin is *BMC* no. 630 (pierced).

PH 249 has a row of dots instead of the moneyer's name. This is one of the pieces of evidence that shows that the Peirese inventory cannot have been copied from the Tate list and is an independent compilation. P 23 asks 'was it coin'd for an half penny?'

181. Lincoln. Godric. N 818. Obv. legend not given / GODRIC ON LINC. P 22/2. This coin is *BMC* no. 666.

Expanding Cross

182. York. Arngrim. N 823. +EDPERD REE / +ARNEKM ON E·OF·ER. PH 249/87 and 261, P 22/1 (wt 27 gr). S 360, F VI, 9, D'E. This coin is *BMC* no. 299.

P 22 has REEX and AR·NGRIM as *BMC* no. 299.

183. York. Leofnoth. N 823. +EDPERD REX / LEOFENOÐ ON EOFE. PH 249/88 and 262. This coin is possibly *BMC* no. 306, acquired before 1838.

Pointed Helmet

184. Chester. Bruninc. N 825. EDPARD RE / +BRVNNA ON LEII. P 22/5. This coin is *BMC* no. 641.

185. Leicester. Godric. N 825. EDPERD REX / +GODRIC ON LENFR. PH 249/93 and 268. This coin is probably *BMC* no. 614, ex Southgate 1795.

P 249 has EDPERD REEX (dittoed from a coin earlier in the list).

186. Leicester Wulnoth. N 825. EDPERD REX / +DVLINMOÐ ON LEI. PH 249/91 and 268, P(G) 23/2. This coin is *BMC* no. 615.

PH 268 obverse legend is dittoed from above. P(G) has E..PEDRE and PH 249 has the same reverse reading.

187. Winchester. Godwine Widia. N 825. EDPERD REX / +GODPINE DIDIA ONPINE. PH 249/94 and 268, P 23/15 (wt 20 gr). This coin is *BMC* no. 1426.

PH 249 has PIN as Pegge and *BMC* no. 1426. P 23 has +EDPEP ·DREI.

188. York. Arncetel. N 825. EDPERD REX / +ARNETEL ON EOFE. PH 249/89 and 268. P 22/7 (wt 21 gr). This coin is probably *BMC* no. 321.

The obverse legend of P 22/7 and *BMC* no. 321 ends R not REX, but the obverses at P 249/89 and 268 are dittoed from a previous entry and so less reliable. The identity is accepted with a query, but the Peirese coin may be a different example.

189. York. Arngrim. N 825. EDPERD REX / +ARNGIM ON EOFI PH 249/ 90 and 268. P 22/6 (wt 20½ gr). This coin is *BMC* no. 323.

190. Uncertain. Leofwine. N 825. EDPERD REX / +LEOPFINE ON NEI. PH 249/92 and 268, P 22/10 (wt 20 gr). Not traced.

P 22 has EDPER D REX / LEOFFINE ON HE. Gifford found this coin to be missing in 1756.

Uncertain mint and moneyer. See Appendix, xiii.

Sovereign

191. Canterbury. Eadweard. N 827. EADPEARD · REX ANGLO / +EADPEARD O LFNE(3 pellets upright). PH 249/103 and 268. P 22/11 (wt 19 gr). This coin is *BMC* no. 1568.

192. Uncertain. Swetric. N 827. +EADPEARD REX ANGLOR / SPETRIC ON M:DL PH 249/101 and 268. Not traced. Legends above from PH 249. PH 268 reads MDL. Swetric is a moneyer at Milborne Port for Cnut and at Wilton for Edward, Hammer Cross.

193. York. Ioketel. N 827. EDPARD REX ANGLOR / IOKETEL ON EOFE. PH 249/104 and 268, P 22/4. This coin is *BMC* no. 349.

This coin and the next do not appear in the Tate list in Peirese because they have been cut off the bottom of the page in the binding, but are supplied by the closely similar list among the Cotton papers (see discussion on pp. 173–4 above). (PH 249) has ORETEL ON EOFER.

194. York. Outhgrim. N 827. EDPARD X ANGLOR / O-ÐGRIM ON EFRPI. PH 249/103a. S 398. F VII. 48. Not traced. See previous. Taylor Combe noted a coin of this description in the British Museum in 1812, but it was not listed by Pegge or Gifford and is not in *BMC*. D&S 1954 suggested that the Cotton coin may have been disposed of when a better specimen was acquired from the Bishophill (1882) hoard.

195. York. Thor. N 827. – / -ÐORR ONN EOFRI'C. PH 249/102 and 268. P (G) 23/1 (wt 20½ gr). This coin is *BMC* no. 353.

PH 249 reads EOFRPC; P(G), -ÐOR.

Hammer Cross

196. Chester. Ælfsi. N 828. +EADPARDRD RE / +ELFSI O EGECEs. P 23/13 (wt 21½ gr). This coin is *BMC* no. 654.

197. Exeter. Lifinc. N 828. +EADPARRD · RE / +LIFING · ON · EXECEST. PH 249/95 and 268, P 22/3 (wt 20½ gr). This coin is *BMC* no. 229.

198. Hereford. Ælfwi. N 828. EADPARD · / +ÆLFPI ON HEREFOR. P 22/9 (wt 20½ gr). Not traced.

This coin was found to be missing by Gifford in 1756.

199. Leicester. Ælric. N 828. EADPARRD RE / +ÆLRIC ON LEHPE ... PH 249/96 and 268, P 22/8 (wt 20 gr). This coin is *BMC* no. 622.

PH 249 has LEHP · · · · ; P 22, LEHR; *BMC*, LEHRECE. Pegge had recorded this coin as 16 gr, but this was corrected by Gifford to 20 gr, which is the weight of *BMC* no. 622.

200. Shrewsbury. Wulfmaer. N 828. +EADPARD R / +PVLMAER ON SCBE. P 23/1 (wt 20½ gr). This coin is *BMC* no. 1186.

BMC has RE and SCBE, but the weight agrees, 20.6 gr.

Hammer cross / Small Cross

201. Leicester. Agelric. N 828/830. +ADPARRD · REX / +AGLINC ON IEHO. PH 249/99 and 268. P 23/14 (wt 17½ gr). This coin is probably *BMC* no. 625.

PH 249 has AGERIG ON LEHR, acceptable for *BMC*, but there the weight is 16.6 gr.

Facing Small Cross

202. Leicester. Ægelric. N 830. +EADPARD REX / +ALGRIC ON LEHR. P 23/16 (wt 15 gr, corrected to by Gifford 17½ gr). This coin is *BMC* no. 626.

BMC has +EADPARRD, a pellet after LEHR and weighs 16.7 gr.

203. Wallingford. Brand. N 830. EDPARD REX · A · / BRAND ON PALI. PH 249/86, P(G) 23/4 (wt 17 gr), F VI, 7, D'E. This coin is *BMC* no. 1291.

BMC and D'E have REXA followed by a trefoil of pellets and *BMC* weighs a closely similar 16.5 gr.

204. Wilton. Winus. N 830. EADPERD REX / PINVS ON PILT. PH 249/98. Not traced.

Uncertain mint and moneyer. See Appendix, xiv.

APPENDIX

Other Anglo-Saxon coins in the Peiresc volumes in The Hague

The coins fall into three categories:

- (a) duplicate coins listed by Tate which apparently left the collection before Peiresc's visit in 1606 (nos ix and x);
- (b) one coin which may have passed through Cotton's hands, but was probably not retained (no. viii);
- (c) coins which are unlikely to have been in Cotton's collection (nos i-vii and xi-xiv)

SCEAT, late 7th or early 8th centuries

i. Uncertain series. OOVTH radiate head/standard with TTOLL (d). PH 120. This coin probably did not belong to Cotton (see p. 175). Not traced.

The substantive series which associate a radiate head with a standard type reverse are Primary Series A and C, and Secondary Series R. The neatness of the letters inside the standard as drawn in PH is found more systematically in Series A and C, although it also occurs occasionally in series R, but there is insufficient detail for classification. Pegge (1748) does not include a sceat of these types and, if the pseudo-inscription is correctly transcribed, none of the relevant coins in the British Museum with a standard reverse is a likely match.

ÆTHELRED I OF NORTHUMBRIA, Second reign, 789–96

ii. Ceolbald. N 185. +AEDILRED rosette / +CEOLBALD rosette. PH 120. This coin probably did not belong to Cotton (see p. 175). Not traced.

BMC no. 284 (under Æthelred II in D & S 1955–7), acquired before 1838, is possible, but there are other candidates.

ARCHBISHOP ECGBERT OF YORK, 732/4–58

iii. Under King Eadberht. EOTBERHTV / ELGBERT. PH 120. This coin probably did not belong to Cotton (see p. 175). Not traced.

OFFA OF MERCIA, 757–96

iv. Ealhræd. N 292, B 48. OFFA / aLRE/d. PH vol. 1, 352. This coin probably did not belong to Cotton (see p. 175). It is probably *BMA* no. 16 (slightly chipped), ex Montagu 1895, 181, ex Vicomte de Ponton, Rollin & Feuadent (Paris) 1890, 705. Possibly a French find.

BURGRED OF MERCIA, 852–73

v. Diga. Lunettes (a). N 423. +BVRGRED REX / DIGA MON ETA. PH 120. This coin probably did not belong to Cotton (see p. 175). Not traced.

vi. Dudecil. Lunettes (a). N 423. BVRGRED REX / DVDEL HLMO NETA. PH 120. This coin probably did not belong to Cotton (see p. 175). Not traced.

The drawing on PH 120 shows no hooks on the central lines normally designating type (a) so, if correctly drawn, this cannot be *BMC* no. 253, ex Tyssen, otherwise a candidate, which is of type (c).

vii. Dudeman. Lunettes (a). N 423. BVRGRED REX / DVDEMA HMO NETA. PH 120. This coin probably did not belong to Cotton (see p. 175). Not traced.

BEORHTRIC OF WESSEX, 787–802

viii. Ecghard. N 558 (var.). BEORHTRIC REX / EECHEARD. PH 69. Not traced.

This coin is listed with nos 15 and 21 above in PH 69 and, with them, in the letter of Peiresc to Cotton of 1618, so it cannot be the coin illustrated in Speed 1611, but it seems unlikely that Cotton had two coins of this rare type (see p. 175).

EDWARD THE ELDER, 899–924

ix. Building type. Wulfgar. N 667. CTCE no. 342. +EADVVEARD REX / VVLFGAR. PH 248/54. Not traced.

This coin was probably disposed of by Cotton between Tate compiling his list and Peiresc's visit of 1606 (see no. 95 in the Corpus). There are several candidates, some probably deriving from the same hoards from which Cotton acquired coins (see CTCE, 41–2 and 79). One is Pembroke 1848 (1733), 39, which Rashleigh 1908 (1811), 241, says 'has been in fire'. None of the surviving Cotton coins shows signs of burning and the coin collection is not believed to have suffered in the Ashburnham House fire of 1731. The comment in Rashleigh may have been a deduction from the black patina displayed by many (but not all) Cotton coins but, if there were no other evidence, it does not connect the coin with Cotton as fires are commonplace.

x. Two-line type. Æthelstan. N 649. CTCE no. 59. +EADVVEARD REX / AE-DEL / TAN MO. PH 249/65. Not traced.

While ditigraphy cannot be ruled out, this is a probably a similar case to no. ix, where a duplicate coin was disposed of between Tate compiling his list and Peiresc's visit in 1606. (See no. 110 in the Corpus.)

CNUT, 1016–35

xi. Unrecorded mint and moneyer. North 790. CNVT REX diademed bust / rev. legend not given. PH 120. This coin probably did not belong to Cotton (see p. 175). Not traced.
The few details recorded suggest Cnut rather than Harthacnut.

HARTHACNUT, uncertain period

xii. Unrecorded mint and moneyer. North number uncertain. +HARD CNVT R / rev. legend not given. PH 120. This coin probably did not belong to Cotton (see p. 175). Not traced.
The only indication of type is that the bust is diademed.

EDWARD THE CONFESSOR, 1042–66

xiii. Unrecorded mint and moneyer. North 825. +EDPERD REX / rev. legend not given. PH 120. This coin probably did not belong to Cotton (see p. 175). Not traced.

xiv. Unrecorded mint and moneyer. North 830. EALRARD REX / rev. legend not given. PH 120. This coin probably did not belong to Cotton (see p. 175). Not traced.

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KEY TO PLATES

Plate 26

Peiresc manuscript vol II p. 255 identifying the source of the coins as Cotton's collection (Rijksmuseum Meermanno – Westreenianum, The Hague).

Plate 27

1. Cuthred, Sigebert. Peiresc (Carpentras) ms., 1608.
2. Cuthred, Sigebert. West ms., 1744.
3. Cuthred, Sigebert. *BMC* 8,
4. Cuthred, Sigebert. *SCBI* (Glasgow), no. 387.
(Nos 1–4, see Corpus no. 7)
5. Archbishop Ceolnoth, Wynnere. *SCBI* (Cambridge), no. 445.
(See Corpus no. 10)
6. Coenwulf, Diormod. Wise, 1750.
7. Coenwulf, Diormod. *SCBI* (Oxford), no. 18.
(Nos 6–7, see Corpus no. 26)
8. Ludica, Werbald. West ms., 1744.
9. Ludica, Werbald. *SCBI* (Glasgow), no. 354.
(Nos 8–9, see Corpus no. 35)
10. St Peter of York. *SCBI* (Oxford), no. 227.
11. St Peter of York. *SCBI* (Oxford), no. 228.
12. St Peter of York. Peiresc (The Hague) ms., 1606.
(Nos 10–12, see Corpus no. 71)
13. Edward the Elder, Fugel. Peiresc (The Hague) ms., 1606.
14. Edward the Elder, Fugel. Pegge ms., 1748.
(Nos 13–14, see Corpus no. 99)

ANGLOSAXONVM

255

ARGENTEI NUMMI QVI.

Londoni apud monachum Doctissimum
venerum D. Robertum ottonem adscriptum.

EX REGNO CANTUAR.

h. tres tantum videntur, quibus expone.

 **EAÐBERHTVE** et in medio Signum Crucis +
Equus gradens. Sin. vna inscriptione.

Anno d. 726.

 **+LVÐRED REX LANȚ**
Interpretatio. Et p. simbolo. Regis imberbis effigies dupli geminis ordine coronata.
aduersa p.  **+SIGEBERHTI MONETA**
Interpretatio. Et p. simbolo. Signum crucis radiis emittentis.

Regnum inquit
Eulredus Anno
Incarn. d. 797.

In his nummis quæ omnia simili sunt est quæ differat propter inscriptionem
aduersæ partis in qua legitur: **+VERHEARDI MONETA**.

EX REGNO SAX. ORIENT.

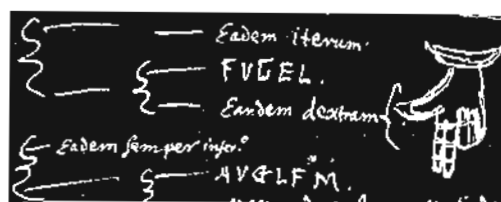
duo alij offa regis, in quibus.

 **+OFFA REX +**
Regis imberbis caput diademate recte vinctum.
 **+ELIH**
Crux, flores emittens, quatuor geminis globulis insignis.

Regnum addeplyd
Anno d. 701

 **+OFFA REX +**
desert corona in regis effigie.
 **+EIOHARD**
Serpens, ni fallor complicatus.

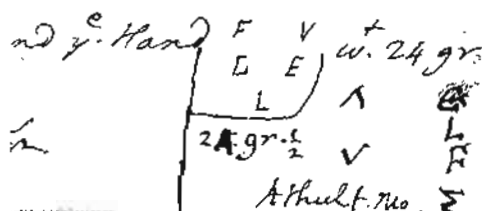
De hoc minus
certum est an
ad hunc pertinet
pertinet quæ
ad Mercurium Regem.



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PRESIDENTIAL ADDRESS 2005

CURRENCY UNDER THE VIKINGS. PART 2: THE TWO SCANDINAVIAN KINGDOMS OF THE DANELAW, c.895–954

MARK BLACKBURN

In last year's Address I discussed the earliest phase of Viking coinage in the Danelaw, which was essentially imitative, initially of the Carolingian Temple type, but then in a series of substantial coinages inspired by contemporary issues of King Alfred. I suggested that there was continuity of minting in East Anglia from King Edmund through into the Scandinavian period, and that that was the reason why the traditional East Anglian weight standard (c.1.35 g) survived and was used in preference to Alfred's reformed (c.1.60 g) standard of c.880. Today I want to address the succeeding phases in which the Scandinavian kingdoms of the Danelaw adopted their own distinctive coin types in what one might describe as 'national' coinages, issued between c.895 and the final subjection of the York kingdom in 954. As before, I will only have time to probe certain aspects in detail.¹

Historical accounts of the Danelaw in this period, relying on the extant written sources which are essentially Anglo-Saxon, typically focus on the demise of the Scandinavian kingdoms as a result of the campaigns of Edward the Elder and Æthelflæd during 912–19 and Athelstan's capturing of York in 927. The reestablishment of the York kingdom after 939 is often treated as something of a postscript, of interest for the relations the Norse kings enjoyed with Edmund and Eadred. However, the coins are one of the few contemporary sources to survive from the Scandinavians themselves, and they provide an opportunity to focus on the nature and achievements of the Danelaw kingdoms.

Numismatic Literature

The coinage of Scandinavian York has always attracted interest among numismatists, and a review of the literature, with the rather tortuous steps forwards and backwards that the subject took, could well fill a whole lecture. Key players have been Daniel Haigh, Jonathan Rashleigh, George Brooke, Charles Oman, Derek Allen, Michael Dolley, Christopher Blunt, Stewart Lyon and Lord Stewartby.² The early regal coinage of York, so well-represented in the Cuerdale hoard, although much debated in the nineteenth century, was the subject of such a comprehensive review and die-study in 1961 by Lyon and Stewart that little more of significance has been added since then.³ The dating of the St Peter coinages and those in the names of Ragnald, Sihtric and St Martin was for a long time seriously adrift, as the Sword types were thought to be late and associated with that of Eric Bloodaxe (947–8, 952–4). It is only in the last 35 years that a consensus has formed for a chronology that seems reasonably secure. Allen (1936–7) had had misgivings, but Dolley's 1958 essay on 'The Post-Brunanburh Viking coinage of York', systematically reviewing the hoard evidence, represented a turning point in sorting out the chronology.⁴ The finer tuning of the

¹ This is a revised and extended version of the paper read at the Anniversary Meeting in November 2005.

² See, in particular, Haigh 1839–40; Rashleigh 1869; Haigh 1876; Brooke 1932; Oman 1934; Allen 1936–7; Dolley 1957a, 1957b, 1957–8, 1965, 1978, 1982; Lyon and Stewart 1961; Stewart 1967, 1982; Blunt and Stewart 1983; Blunt, Stewart and Lyon 1989; Stewart and Lyon 1992.

³ This was a remarkable study for its time, prepared in the 1950s, based on a detailed die-analysis of a substantial corpus, the results of which were presented clearly and concisely. It remains a showpiece of methodology, marshalling statistical arguments to guide historical interpretation. However, the absence of an illustrated catalogue of the die study is felt, and would still justify publication. Blunt 1985 argued persuasively for the coins in the name of *Ahvaldus* to be attributed to the ætheling Æthelwold.

⁴ Dolley 1957–8, heralded by two short articles, Dolley 1957a and 1957b.

various issues of the 920s has been discussed in a number of articles, mainly involving Lord Stewartby, while the publication in 1989 of Blunt, Stewart and Lyon's *Coinage in Tenth-Century England* marked a significant development in our understanding of the post-939 issues of York. One series that has remained particularly neglected was the Swordless St Peter type, but I am glad to say that that is now being studied by Megan Gooch for her PhD.

From the Southern Danelaw, the large St Edmund coinage was reviewed by Blunt in 1969, the 1100th anniversary of Edmund's death, and recently Hugh Pagan and I published two new hoards that have shed light on the later phases of the coinage,⁵ but it is a series in which a full analysis and die-study is badly needed. Recent work has begun to assess the economic, administrative and political aspects of the Scandinavian coinages, and it is in these areas that as numismatists we have most to offer the general historian.

The Establishment of Distinctive Scandinavian Coinages

The mid-890s saw important developments in the establishment of distinctive 'national' coinages in the two main kingdoms of the Danelaw. In East Anglia and the east Midlands the St Edmund coinage replaced issues imitating Alfred's coins,⁶ while in York the regal coinages in the names of Sigefrith (c.895–900) and Cnut (c.900–5) probably represented the first minting in the city for some thirty years, since the end of the styca coinage.⁷ This was an important stage in the development of these kingdoms, recognising their political maturity and confidence. The Christian features of the St Edmund coinage, endorsing the cult that had grown rapidly in the twenty-five years since the death of King Edmund (855–69), have long been recognised by numismatists and historians, but the equally strong Christian traits in the York regal coinage have, until recently, received less attention.⁸ The bold designs, in some forty different types, with cross-crosslets, Patriarchal crosses, standing crosses etc., as well as the liturgical legends, represent real innovations in coin design, and owe much less to Carolingian precedents than has previously been argued. Those designing the York coinage were determined to make it distinctive from contemporary Anglo-Saxon and Carolingian issues, and to emphasise in a sophisticated way the Christian convictions of the leaders in York. There is little doubt that the church in York, one of the few bishoprics in the Danelaw to survive the Scandinavian period, influenced this agenda and perhaps even the details of the designs. But I would take issue with Professor Rollason,⁹ who argues that this and the succeeding St Peter coinages are essentially ecclesiastical issues from a city where the archbishop's power was greater than that of the Scandinavian kings. The coinage of Sigefrith and Cnut is overtly regal, and its size, sophistication and economic reliability point to a strong government, and one that is saying to its people and to neighbouring countries that it can be counted as a member of the circle of Western Christian states.

The same I would suggest is true of the St Peter coinage: that is, it is essentially a royal coinage. Minting was a royal prerogative, and a lucrative one, and while kings did occasionally make limited grants of minting rights to particular churches or monasteries, just as they granted land to them, it would be quite exceptional for a state to alienate its entire coin production for decades as would be implied if the St Peter, and by analogy the St Edmund, coinages were regarded as church issues. Yet this debate will continue to run inconclusively,¹⁰ pending the discovery of new evidence.

The Reconquest and Assimilation of the Danelaw

The period from which there have been most significant finds in recent years is that of the 910s and 920s – an important time historically as the Anglo-Saxons reconquered and assimilated the

⁵ Blackburn and Pagan 2002.

⁶ For the dating of the introduction to the mid-990s see Blackburn 1989, 25.

⁷ The question whether any imitative issues preceded the introduction of the regal issues of Sigefrith at York in c.895 is considered in Blackburn 2003, 327–9.

⁸ Blackburn 2004, 329–32; Blackburn forthcoming.

⁹ Rollason 2004, 313.

¹⁰ For the most recent discussion see Stewart 1982b, 249–50; Abrams 2001, 37; Blackburn 2004, 333; Rollason 2004, 313–14.

southern Danelaw. Until 1993 the only hoard of this period from the southern Danelaw was that from Morley St Peter (Norfolk), discovered in 1958.¹¹ This large hoard, deposited *c.*925, at the beginning of Athelstan's reign, had a great variety of coins, some up to fifty years old, and it was questionable whether this was likely to be representative of the currency circulating in Norfolk in the 920s. During the last twelve years no less than five new hoards of this period have been discovered (Table 1), and they provide us with a much fuller picture of developments in the currency.

TABLE 1. Hoards from the Southern Danelaw deposited *c.*910–30

	wt standard (approx.)	Manningtree (Essex) <i>c.</i> 1995	'Baldwin' Parcel (<i>c.</i> 1993)	Brantham (Suffolk) 2003	Framingham Earl (Norfolk) 1994–7	Morley St Peter (Norfolk) 1958	Thurcaston (Leics.) 1992–2000
Athelstan (924–39)	1.60g	–	–	–	–	1	–
Edward the Elder (899–924)							
Horizontal (MNE)	1.60g	–	–	85+	–	35	–
Horizontal (MSE)	1.60g	–	–	1	–	2	–
Horizontal (other)	1.60g	–	–	–	–	15	3
Horizontal (blundered)	1.65g	–	–	4	–	43	–
East Anglian Portrait	1.35g	–	–	–	21	663	–
Other Portrait	1.60g	–	–	–	–	5	–
Alfred (871–99)	1.60g	–	–	–	–	77	–
Ceolwulf II (874–9)	1.40g	–	–	–	–	1	–
Anglo-Scandinavian							
St Peter (Sword)	1.30g	–	–	–	–	1	2
Sihtric Caech	1.30g	–	–	–	–	–	5
Anonymous Sword	1.30g	–	–	–	–	1	–
St Peter (Swordless)	1.10g	1	–	–	–	13	–
St Edmund	1.35g	<i>c.</i> 89	44	–	–	19	–
Other	1.35g	–	–	–	–	7	–
Islamic dirhems	2.97g	–	–	–	–	–	2
Total		<i>c.</i> 90	44	90+	21	883	12
Date of deposit		<i>c.</i> 915	<i>c.</i> 915	<i>c.</i> 923	<i>c.</i> 923	<i>c.</i> 925	<i>c.</i> 925

Mention has already been made of two St Edmund hoards, one from Manningtree on the Essex-Suffolk border¹² and the other without known find location (the 'Baldwin parcel').¹³ Both hoards comprised mainly later coins of the St Edmund issue, with only a few specimens dating from the early (Cuerdale) phase, and just a single coin from another issue, a St Peter penny present in the Manningtree hoard.¹⁴ Together they emphasise the homogeneity of the currency of East Anglia in the mid 910s, from which 'foreign' coins – even those from Scandinavian York – had been largely excluded, while most of the earlier St Edmund coins had left circulation. That does not mean that the mixed bullion economy redolent of the Scandinavians had completely disappeared, for it appears to have subsisted in the Danelaw among certain elements of society or for certain transactions into the 920s.¹⁵ The later St Edmund coins have generally been thought of as being

¹¹ The hoard, which is divided between the British Museum and Norwich Castle Museum, has been fully published in Clough 1980 (*SCBI* East Anglian Museums).

¹² Blackburn 1996, Blackburn and Pagan 2002, 4. The hoard has been dispersed save for a parcel of ten coins in the Fitzwilliam Museum.

¹³ Blackburn and Pagan 2002, 5–8, 11–14. The hoard has been dispersed.

¹⁴ There was said to have been only one coin of another type (a St Peter issue) among the *c.*90 pennies in the Manningtree hoard, and none among 44 pennies in the Baldwin parcel. Only one St Edmund coin from a sample of twelve from Manningtree and one out of the 44 from the Baldwin parcel were of the earlier (i.e. Cuerdale) phase.

¹⁵ Graham-Campbell 2001a; Blackburn 2001a, 134–5.

struck on smaller, lighter flans, but our study of the 'Baldwin' parcel suggested that reduction in the flan size was minimal (about 5%), and that the weight standard actually rose, rather than fell. The main change was in the diameter of the inner circle and the thickness of the letters.

TABLE 2. Brantham (Suffolk) Hoard 2003

90 coins, deposited c.920–24

Edward the Elder, Horizontal type:

Midlands North-East (MNE) style, all HT1 variety:

Adalbert	1
Badda	16
Domences	1
Gunter	10
Harluin	1
Landuc	7
Pitit	21
Warner	9
Willuf	12
Winegar	2
Winele	5

Midlands South-East (MSE) style, HQ1 variety:

Maginhard	1
-----------	---

Blundered imitations:

4

In 2003 a fascinating hoard was discovered at Brantham in south-eastern Suffolk, the neighbouring parish to Manningtree, and deposited only a few years later than the Manningtree hoard. It comprised some 90 late Horizontal coins of Edward the Elder (Table 2).¹⁶ The hoard must have been deposited between c.920 and 924, yet there was not a single St Edmund coin, although these would only have gone out of production after 917. On the face of it, the Brantham hoard suggests that the local Scandinavian currency was very quickly demonetised and replaced with regular coins of Edward the Elder on the higher Mercian/West Saxon weight standard of c.1.60 g. Eighty-five of the 90 coins are of one consistent style, labelled by Stewart Lyon 'Midland North-East' (MNE) (Fig. 1).¹⁷ Three of the moneyers have names also found on the St Edmund coinage: Alalbert, Bada and Winegar, which suggests continued minting from a Viking mint. But where was the MNE style being struck? Given the location of the Brantham hoard, close to the Essex border near Colchester, it would be tempting to see the mint as Ipswich. But Lyon rightly argues for associations with the Stamford area, as several of the moneyers went on to strike coins of NE I style under Athelstan, including the prolific Pitit and Willuf. One other coin belongs to Lyon's 'Midlands South-East' (MSE) style which is perhaps from Bedford or Northampton, and four are blundered imitations.

In the Morley St Peter hoard the MNE group also dominated the official Horizontal coins of Edward the Elder (Table 1). However, this was only a small element of total hoard, and it was well outnumbered by the 663 coins of the East Anglian Portrait type in the name of Edward. These were struck to the lower East Anglian/Scandinavian weight standard of c.1.35 g, and with mainly derivative or blundered legends, many copying names of London moneyers. The Morley St Peter hoard also differed from Brantham in containing a substantial number of pre-conquest coins – some late St Edmund and St Peter coins, and Danelaw issues of the 880s and 890s, as well as a tranche of Alfred's official coinage, particularly Winchester coins of the late 890s. Morley St Peter was evidently a savings hoard, drawn from different sources at different times, and so not necessarily representative of the currency circulating in Norfolk in the 920s. However, the very presence of such a mixed hoard with coins of varying weights, new and old, shows that they were available and suggests that the owner participated in the bullion economy referred to already.

¹⁶ The hoard has been acquired by the Fitzwilliam Museum and will be published by Dr Anna Gannon in *BNJ*. A preliminary report has appeared in 'Coin Hoards', *NC* 164 (2004), 279, no. 18. Four additional coins, reported to the Fitzwilliam Museum as single finds from Suffolk during 2005 and early 2006, appear to be strays from the hoard, and there may well be more.

¹⁷ *CTCE*, 52–4.



Fig. 1. Coins from the Brantham hoard.

Insofar as a coin economy was also active in Norfolk, one would expect this to have been based on the local East Anglian Portrait issue that was evidently being struck on a substantial scale. Another of our new hoards conveniently confirms this. The Framingham Earl hoard, discovered 1994–7, comprised 21 of these East Anglian coins.¹⁸ Like the Brantham hoard, it must have been deposited in the earlier 920s, and again we find that the St Edmund coinage is absent and there are no coins from neighbouring regions. The fact that the East Anglian Portrait issue retained a similar weight standard to that of the St Edmund coins makes the latter's absence still more significant, for it suggests that they were driven from general circulation not by economic forces but by a deliberate recoinage. The numismatic evidence, then, suggests that after the reconquest of East Anglia in 917 there was a rather delicate balance of power in Norfolk. Edward the Elder had sufficient authority to order a general recoinage of the Scandinavian currency, replacing it with a coinage in his own name, yet he was unable to place the administration of the local mints and the monetary system under full West Saxon/Mercian control. His new coinage had many of the hallmarks of earlier Scandinavian issues, the design and often the inscriptions copied from London coins, exhibiting very poor standards of literacy and following the local East Anglian weight standard. By contrast, in the East Midlands Edward had been able to extend normal standards of weight, design and literacy to the former Scandinavian mints that then struck Horizontal MNE coins, and so too was Athelstan when he took York in 927, although there the weight standard had to be raised in two stages over a period of several years.¹⁹

Why were the compositions of the Brantham and Framingham Earl hoards so very different? Should we take them at face value as indicating that the East Anglian Portrait type was confined to the north of East Anglia, while in the south the currency was based on the Horizontal type? The single-find evidence may help to determine this one day, but presently it is rather thin. From Suffolk there are only two reliable reports of Edward the Elder coins, a blundered Horizontal penny and a remarkable halfpenny of the north-western Hand type, while from Norfolk there are three Horizontal coins, two East Anglian Portrait coins and an imitation of the Flower type.²⁰ If the Brantham hoard does reflect local currency, the dominance of an East Midlands style and the total absence of more southern issues is surprising. This might have been because the recoinage in Suffolk was implemented by moneyers operating at mints in the East Midlands, or the hoard may simply represent a sum of money brought into the region from eastern Mercia. This fascinating find will require further evidence before it can be really understood.

¹⁸ The hoard was acquired by the British Museum and will be published by Miss Marion Archibald. A preliminary report, with addenda, has appeared in 'Coin Hoards', *NC* 156 (1996), 291, no. 130; 157 (1997), 231, no. 49; 158 (1998), 298–9, no. 37.

¹⁹ At York, Athelstan's first issue, the Church type, was struck to an intermediate c.1.45 g standard, shortly succeeded by his Circumscription Cross type at c.1.60 g; Blackburn 2004, 335 and 340.

²⁰ Based on finds recorded on the *Corpus of Early Medieval Coin Finds from the British Isles* (www.fitmuseum.cam.ac.uk/coins/enc/).

The Five Boroughs in the 920s

The last of the new hoards of this period comes from the East Midlands, specifically from Thurstaston, some five miles north-west of Leicester.²¹ This hoard was also deposited in the early to mid 920s, and in an area of the Danelaw that should have come under Mercian control in 918 when Æthelflæd took Leicester. It comprises just twelve coins, but they are a fascinating mix representing three quite different monetary systems (Table 3). The Anglo-Saxon element is three coins of Edward the Elder's Horizontal type, not issues of the East Midlands, but ones in the styles of London, Winchester and West Midlands die-cutters. Then there are seven Anglo-Scandinavian coins, contemporary issues of the 920s rather than earlier ones that might have remained in local possession since the reconquest. Two are Sword St Peter coins of York, and five are rare coins of Sihtric Caech, king of York (920/1–7). The last two coins are fragments of Samanid dirhems, struck in Samarqand 913–16, which will have arrived recently in England via Scandinavia and Russia. They provide clear evidence that the group represents a purse of current money used in a bullion (or money-weight) economy. This suggests that a dual economy persisted for at least five years after the reconquest in certain areas of Danelaw, perhaps limited to individual villages or families. The name Thurstaston ('Thorketil's tun')²² itself suggests there were Scandinavian residents, and a silver Thor's hammer found nearby reinforces this.²³

TABLE 3. Thurstaston (Leics.) Hoard

12 coins, deposited c.925	
Sihtric Caech (920/1–7), Five Boroughs, <i>Sword/Cross</i> type	5
Sword St Peter (921–7), York, <i>Sword/Cross</i> type	2
Edward the Elder (899–924), <i>Horizontal (Late)</i> types	3
Islamic, Samanid, dirhams, 913–16	2

The Scandinavian element is important, adding five new specimens of Sihtric Caech's *Sword/Cross* type, of which only three were known previously. They provide additional evidence for the chronology and origin of this coinage, in particular adding further weight to the arguments that it was struck south of the Humber in the Five Boroughs. Such a conclusion is not to be drawn lightly, in view of the remark in the *Anglo-Saxon Chronicle* for 918 that 'all the people who had settled in Mercia, English and Danish, submitted to [Edward the Elder]', which had been taken by historians as indicating that all the Southern Danelaw, including Lincolnshire, had been conquered.²⁴ The numismatic case for part of this region remaining in Scandinavian hands after 918 is now very strong, but some historians may remain uncertain or sceptical, in part because in the 1970s and 80s some prominent numismatists were still debating the chronology and attributions.²⁵ In the light of recent finds I would like to survey the evidence.

There are four distinct series of Anglo-Scandinavian coins produced during the 920s, each prominently using a sword as the central design on the obverse (Fig. 2 and Table 4). By far the largest number of surviving specimens belongs to the series in the name of St Peter, with *Eborace* (York) on the reverse of many. There are three types within this series, each with different reverse designs: a cross and two versions of Thor's hammer – one in outline like a mallet and one that is linear. There are also a few coins that are transitional between the Mallet and Hammer types, with a linear handle and a hollow mallet head. In 1992, Stewart and Lyon published a corpus and die-study of the series, with 83 specimens,²⁶ and only a handful more have since been found. In the St

²¹ Blackburn 2001b. The hoard is in the Fitzwilliam Museum.

²² Ekwall 1960, 471.

²³ Donated by the finder, Mr Brian Kimberley, to Leicestershire Museums Collection (L.A151.1993).

²⁴ E.g. Stenton 1971, 331.

²⁵ Lord Stewartby was the first to recognise that Lincoln remained a Scandinavian mint into the 920s (Stewart 1967), and the argument was developed in Dolley and Moore 1973; Dolley 1978, 27; and particularly Stewart 1983. However, it was not accepted by Archibald 1980, 107–8, whose comments prompted replies by Dolley (1982) and Stewart (1991).

²⁶ Stewart and Lyon 1992. The utility of this excellent paper is unfortunately impeded by the absence of illustrations of the coins listed in the corpus.



Fig. 2. The four series of Sword types of the 920s.

TABLE 4. The Sword Types of the 920s

	<i>Sword/Cross</i>	<i>Sword/Mallet</i>	<i>Sword/Hammer</i>	<i>TOTAL</i>
St Peter	37	43	6	86
Sihtric	8	4	5	17
St Martin	7	—	—	7
Anonymous	—	—	5	5

Peter issue, the Hammer coins are so much scarcer than those of the Mallet type (six compared with 43 specimens) that Stewart and Lyon were inclined to treat the Hammer type as a variant within the more substantive Mallet type.

The next most prolific series is that in name of Sihtric Caoch (920/1–7). The style and quality of die-cutting is quite different from that of the St Peter series, and the inscriptions are mostly very blundered. When the reverse inscriptions can be read, they mostly give the name of a moneyer; a practice not found on the Scandinavian York coinage before 927. As in the Sword St Peter series, there are three reverse types – with a Cross, Mallet or Hammer – plus a transitional Mallet-Hammer variety, and it looks as if these were intended to mirror the three St Peter issues. A corpus of Sihtric's coins was published by Dolley and Moore in 1973, but since then the number of known specimens has grown from nine to seventeen (listed in Appendix 3). As well as the five specimens from the Thurstaston hoard, additions have come from a single-find from Swallow (Lincs.), an excavation find from the Coppergate site in York and the reattribution of a coin in the Edinburgh collection.

The other two series of Sword types are that in the name of St Martin and an Anonymous (or Circumscription) Sword issue. The St Martin coins name Lincoln as their mint on the reverse (*Lincolla civita(s)*), and when in 1967 Stewart first tentatively suggested that they may date from

the 920s only five specimens were known. Today there are seven, after the addition of a fragment from the Dunmore Cave hoard (1973) and an unprovenanced specimen that appeared in the coin trade in 1978 (Appendix 2). The Anonymous Sword issue was discussed by Stewart in 1983 and no further examples have been added to the five then known (Appendix 1). The circular inscriptions on both sides are mostly garbled, but one (A4) recognisably copies the name and title from coins of Edward the Elder.

The dating of these four Sword series to the 920s can be established from the hoard evidence, which has been reviewed by Stewart and Lyon.²⁷ There are no less than six hoards deposited during the 920s that contained various combinations of these issues: Thurstaston (Leics.) 1992–2000, Bangor (Caerns.) 1894, Morley St Peter (Norfolk) 1957, Glasnevin (Co. Dublin) 1838, Bossall (Yorks.) 1807 and Dunmore Cave (Co. Kilkenny) 1973 (Table 5). Within the sequence of issues at York, the Sword St Peter types were produced between the coinage of Ragnald I (919–20/1) and Athelstan's taking York in 927, and so they date to the reign of Sihtric Caech.²⁸ Sihtric's named coinage belongs, of course, to the same period. On typological grounds the St Martin coinage must be contemporary with or follow the St Peter Sword/Cross type which inspired it – shown by details such as the pellets flanking the As in $\text{H} \text{L} \text{I} \text{N} \text{C} \text{O} \text{L} \text{L} \cdot \text{A} \cdot \text{C} \text{I} \text{V} \text{T} \cdot \text{A} \cdot$ also found on several St Peter reverses. The Anonymous Sword type is not closely associated, typologically, with the other issues, as the Hammer side appears to be copied from the last of Ragnald's three types, while the sword enclosed in a circular inscription is treated rather differently from that on the other Sword issues. The design link with Ragnald and the presence of the type in the Morley St Peter and Bangor hoards point to a date for the Anonymous type in the early 920s, perhaps before the Sihtric and St Martin issues.

TABLE 5. Hoards of the 920s containing coins of the Sword types

(Source: Stewart 1982, Stewart and Lyon 1992, amended)

	<i>Thurstaston</i>	<i>Bangor</i>	<i>Morley St Peter</i>	<i>Glasnevin</i>	<i>Bossall</i>	<i>Dunmore Cave</i>
ENGLISH						
Pre-899	–	–	77	–	1	–
Edward	3	3	763	–	5	2
Athelstan	–	–	1	2	2	1
SCANDINAVIAN						
Earlier issues	–	–	26	–	3	–
Swordless St Peter	–	2	13	–	13	–
Ragnald	–	–	–	–	12	–
Sword St Peter						
Cross type	2	2	1	2	2+	1
Mallet type	–	–	–	–	10+	1
Hammer type	–	–	–	–	–	–
Anonymous Sword	–	1	1	1	–	1
St Martin	–	–	–	–	–	1
Sihtric						
Cross type	5	–	–	1	–	–
Mallet type	–	–	–	–	–	–
Hammer type	–	1	–	1?	–	–
ISLAMIC AND OTHER	2	5	–	2	2	2
Total	12	14	883	8/9?	c.270	9

Within the St Peter issue the sequence of the three types could not be determined by Stewart and Lyon. On the one hand the typological affinities might suggest that the Hammer-Mallet group may have succeeded Ragnald's Hammer/Bow type and the composition of the Bossall hoard

²⁷ Stewart 1982a, 110–11; Stewart and Lyon 1992, 61–2.

²⁸ Dooley 1982; Stewart 1991.

could be interpreted as supporting that. On the other hand, they argued that the overall composition of the five hoards known to them (excluding Thurstaston) and the die-survival rates pointed to the Cross type coming before the Hammer-Mallet group. The Thurstaston hoard with its seven Cross coins and no Hammer or Mallet types must support the earlier dating of the Cross type.

The case for attributing the Anonymous, St Martin and Sihtric issues to a mint or mints south of the Humber is based partly on hoard evidence and partly on their inscriptions. The dominant hoard of this period is that from Bossall, situated ten miles north-east of York, deposited *c.* 927. Although we have details of only some 50 of the *c.* 270 coins present in the hoard, the majority of extant Sword St Peter and Ragnald coins must be from this source.²⁹ What is remarkable for a hoard of this size is that it appears to have contained no coins of the other three Sword series,³⁰ although they were represented in each of the other five hoards. Bossall must have been drawn largely from the local currency, where York coins dominated. If we compare this with the Thurstaston hoard, the only contemporary hoard from the Five Boroughs, Sihtric coins outnumber Sword St Peters by five to two. The single-find evidence does not add anything to the arguments, as the finds are too few in number and all types, including the Sword St Peter, are better represented in finds from south of the Humber.³¹

The coin inscriptions point to a similar division. Two of the four issues are mint-signed: St Peter (York) and St Martin (Lincoln). The York Scandinavian coinage before 927 never carries the name of a moneyer, but there are five moneyers named on the Sihtric coins. Three of these (Are, Eric and Manna) are moneyers attributed to Lincoln under Athelstan and his successors (Table 6). A fourth, Sibrant, is not otherwise recorded on coins from central or northern England, while a fifth name (Æthel ... d) is ambiguous and could be identified with known moneyers of York, Lincoln or Leicester. There can be no doubt that Lincoln was operating as a mint for the Scandinavian kings of York during the early 920s, and in view of the way in which Sihtric's coin types parallel those of St Peter minting at Lincoln may have continued down to Athelstan's taking of York in 927.

TABLE 6. Moneyers named on Sihtric Caech's coinage

ADEI[ID	Possibly Æthelferth, at York under Athelstan (BC) and Anlaf Guthfrithsson; or Ædelwerd attributed to Lincoln under Eadred (BC) and Eadgar (HT1 (NEV)); or Æthelred, attributed to Leicester(?) under Eadred (HR1) and Eadgar (R/HC4).
ARE	Are, attributed to Lincoln under Athelstan (HT1 (NEI), HT1 (E)), Eadmund (HT1 (NE I), HT1 (E)) and Eadred (BC mint-signed).
ERIC	Eric, attributed to Lincoln under Athelstan (HT1) and Eadmund (HT1(E)).
MANA	Manna attributed to Lincoln under Athelstan (HT1 (NEI), HT1 (E)), Eadmund (HT1 (NEI), HT1 (E), HR1), Eadred (HT1 (E), BC), Eadwig (BC) and Eadgar (HT1 (NEV)).
SIBRANT	Sibrant not otherwise recorded.

Divisions within Sihtric's coinage

With the discovery of several new coins of Sihtric, it is appropriate to take this opportunity to list and illustrate all the known specimens, to see what light they may shed on the structure of his coinage. The coins are listed in Appendix 3, and their provenances are set out in Table 7. Although Sihtric's coinage is divided into the same three types as the Sword St Peter issue, there is a wide variation in design, style and legends within the coinage. Some features seem to link coins of different types, and it is not easy to arrange the seventeen coins in a meaningful order. In

²⁹ Blunt and Stewart 1983; Stewart 1991; Graham Campbell 1993; Graham Campbell 2001b.

³⁰ As Table 7 below shows, all the extant coins of Sihtric and the Anonymous Sword types have recorded find provenances save for one (SH1) where the provenance is tentative. While five of the St Martin coins do not have findspots, three of these can be traced back before the 1807 Bossall find, and one was probably a recent discovery in the mid-1970s. This leaves only one St Martin coin (M5) and possibly one Sihtric (SH1) that could have come from Bossall, but there is no positive evidence to associate either with the hoard.

³¹ Sword St Peter (3 finds): Louth (Lincs.), Northampton and Littleborough (Notts.), plus the St Peter obverse die from York (Coppergate); Anonymous Sword (1 find): near Cambridge; Sihtric (4 finds): Swallow (Lincs.), Threkingham (Lincs.), 'Derbyshire' and York (Coppergate).

Appendix 3 they are catalogued by type, but on the plates I have arranged them in three groups, A to C, that cross the types. These do not necessarily signify that the coins within a group are contemporary or that different groups are the product of separate workshops or mints. If we had a much larger sample of the coinage, I am sure the pattern would be clearer.

TABLE 7. Sources/present locations of coins of the Sihtric Caech, St Martin and Anonymous series

<i>Finds</i>	Sihtric	St Martin	Anonymous
ENGLAND			
Thurcaston, Leics., hoard	5	—	—
Morley St Peter, Norfolk, hoard	—	—	1
Threkingham, Lincs.	1	—	—
Swallow, Lincs.	1	—	—
Cambridge, near	—	—	1
'Derbyshire'?	1	—	—
York (Coppergate)	1	—	—
WALES			
Bangor hoard	1	—	1
SCOTLAND			
Skye hoard	2	—	—
IRELAND			
Glasnevin hoard	1 or 2?	—	1
Dunmore Cave hoard	—	1	1
'Ireland'?	1	—	—
SWEDEN			
Birka	1	—	—
DENMARK			
Tersley hoard	—	1	—
ITALY			
'Italy'	1	—	—
UNKNOWN	— or 1?	5 ³²	—
Total provenanced	16 or 17	2	5
<i>Present locations</i>			
British Museum, London	3	1	1
Fitzwilliam Museum, Cambridge	6	—	1
National Museums of Scotland	2	—	—
Bangor University	1	—	—
Yorkshire Museum, York	1	—	—
Lincoln Museum	—	1	1
National Museum, Dublin	—	1	1
Royal Coin Cabinet, Stockholm	1	—	—
National Museum, Copenhagen	2	2	—
University Coin Cabinet, Oslo	—	1	—
Private coll.	—	—	1
Unknown/disintegrated?	1	1	—
Total	17	7	5

The first group (A) on **Pl. 29** has a literate obverse legend, **SITR / IC REX**, and a sword pointing right with a simple blade and single bar to the hilt. The two obverse dies of the Cross type (SC1–2) are linked by a single reverse with the enigmatic **†CASTDAEQRT** legend, retrograde. In the Hammer type there are three coins with this arrangement of obverse legend (SH1–3), but they lack the trefoils above and below and a cross at the tip of the sword. It seems likely that these three coins represent a later revival of this literate obverse inscription. Two of the Hammer coins have moneyers' names – Are and Sibrant – the first one indicating the mint was Lincoln.

³² The dates these five coins were first recorded are: 1631, 1733, 1774, 1923, 1978

The second group (B) comprises four coins of the Cross type which have in common the inclusion of a small mallet in the obverse inscription. This is inspired by obverses of the York St Peter coins of the Cross type, where the mallet appears in the centre of the lower line, standing for the letter I (Fig. 2, no. 1). It appears in the same position on three of the Sihtric coins, standing in for a T on SC3 with its unique legend τ / LVDO / SI $\mathbb{D}$ IRC, while SC5–6 are rather blundered. On the fourth coin (SC4) the mallet has transferred to the top line, where it also stands for the letter T. SC3 names the moneyer Eric, a Lincoln moneyer in later reigns. The other three coins have garbled reverse inscriptions, though SC4 may perhaps include a reflection of the name Eric. The significance of the form *Ludo Sitric* has been much discussed. *Ludo* is normally taken to be some unknown form of title,³³ but more plausibly it stands for *Ludovicus* (note the contraction mark above LVDO) and that this was a baptismal name taken by Sihtric, just as the *Carolus* monogram on coins of the York kings Cnut and Ragnald may represent a baptismal name Charles. This was a period when Carolingian and Anglo-Saxon kings often tried to form alliances with the Vikings through bonds of baptismal sponsorship giving them Frankish or Old English names.³⁴

The third group (C) on Pl. 30 is more diverse, with ten coins spanning all three types, plus an imitation of the St Peter Cross issue. Four of the coins are linked by their inclusion in the centre of the lower line of the symbol $\mathbb{D}$, which probably developed through the fusing of CR in *Sitric Rex*, but was then copied without meaning. A coin from the Thurstaston hoard (SC7) probably represents an early stage in the use of this symbol, in which the foot of the R has been understood as a crescent in the lower field. It occurs on a coin of the Hammer type from Swallow, Lincs. (SH4), combined with features that link more coins with the group, namely a central spine on the sword blade and a double bar to its hilt. Among the other Sword coinages, the central spine is only found on one specimen (A2) of the Anonymous Sword type, while the double hilt is exclusive to coins of Sihtric's Group C. Two coins of Sihtric's Mallet type have the $\mathbb{D}$ symbol (SM1 and SM3), both with the central spine and double hilt. The reverse of SM1 might be described as transitional between the Hammer and Mallet types, since it has a solid shaft to the mallet, and the same design with identical ornamentation in the field (two trefoils by the shaft and a crescent above the head of the mallet) is found on the drawing of the lost coin from Threkingham, Lincs. (SM2). While, according to the drawing, this lacks the $\mathbb{D}$ symbol on the obverse, it does have the central spine and double hilt. The fourth mallet coin (SM4) lacks these two features, but its obverse inscription is so close to that of SM3 that it is clearly associated with the group. All four of the Mallet coins have reverse inscriptions that start with the letters $\mathbb{H}$ IEIV or similar, followed by IIO or MOT suggesting it is derived from a moneyer's name and *moneta*, albeit heavily blundered. Finally, two additional coins can be associated with Group C, one with a blundered obverse (SH5) that does not reflect Sihtric's name yet seems to be associated with his coinage. It has a central spine, though only a single hilt, and it is by the Lincoln moneyer Manna. The second is formally a St Peter Sword/Cross coin, but, as Stewart and Lyon have pointed out,³⁵ its style is out of place in that series, and it appears to be an imitation from the same workshop as this Sihtric group of coins. It has the characteristic central spine and double hilt to the sword, and the lettering is also similar. The central cross on the reverse is larger than on the York prototype, but if produced when Sihtric's die-cutter was making dies of the Hammer type, he would have been accustomed to engraving on the reverse a long thin shaft rather similar to the arms of the cross on this die.

How are we to account for these three strands within Sihtric's coinage? Could they represent different mints operating in the remaining Scandinavian-held territory south of the Humber? Could they be the work of different die-cutters? Or can they be explained as chronological developments? Does the presence of an overt imitation of St Peter indicate that the coins in Group C are all unofficial imitations? All three groups include coins that show poor literacy, as indeed is typical of Anglo-Scandinavian coinages struck between c.880 and 927. Many of those

³³ E.g. Dolley 1965, 22.

³⁴ The suggestion that LVDO might stand for *Ludovicus* was first made by Marion Archibald, cited in Stewart 1982a, 114; and the argument has been developed in Blackburn 2004, 331 and 334–5.

³⁵ Stewart and Lyon 1992, no. 19, 'unusual style (cf. Sitric)'. It may be noted that its provenance goes back to the Bergne collection, just as another coin in this group (SM4) does, and perhaps they derive from a common find.

coinages also have imitative elements to them, and not only in the pre-895 phase, for copies of Alfred's Canterbury and Oxford types, the York Cnut issues and Edward the Elder's Portrait type were made in parts of the Southern Danelaw after 900, and even after the reconquest. The same was often true of coinages in Scandinavia and in Scandinavian Dublin. The coinages were perfectly good from an economic point of view, but monitoring standards of literacy on coins was not a priority for Scandinavian administrators, and indeed the meaning of the inscriptions seems at times to have been of such little importance that direct copies were tolerated.³⁶ The implication is that the Scandinavian elite ruled by word of mouth, not through written documents. Given the size of Group C, embracing all known specimens of Sihtric's Mallet type, I would regard this as part of the official series, rather than an unauthorised imitative group. Each of the three Sihtric groups include the names of moneyers who in subsequent reigns are associated with Lincoln, and it would be rash to propose the existence of a further mint south of the Humber in this period without firm evidence. Stamford has already been proposed as the origin for Edward the Elder's MNE style coins, and the other main towns in the Five Boroughs are said in the *Anglo-Saxon Chronicle* to have fallen to Edward by 918. The inscription on SC1-2, if correctly interpreted as *Castra Eort* or similar, may represent the name of a mint and if so it was a Roman fort or town. Whether this was a name for Lincoln or some other town in the region has not been determined.

Sihtric's Cross type, despite the range of literacy and style, appears to have been a distinct, early phase at Lincoln following on from the Anonymous Sword and St Martin issues. It probably started with the more literate coins of Groups A and B, and continued with the more blundered forms within Groups B and C. The three coins of the Hammer type in Group A may represent a reestablishment of literate inscriptions at the start of the new issue, while the bulk of Group C coins constitute the later phase of Sihtric's coinage with a new style of sword.

The pattern of minting in the Five Boroughs before 927

The Scandinavian coinages of the Five Boroughs have proved somewhat difficult to identify, but there is a sequence of issues that can plausibly be attributed to the region, starting with imitations of Alfred's London Monogram and Horizontal types, some of which have a Lincoln monogram or a Leicester mint-name.³⁷ The unique coin of Guthfrith of York (c.883-95) on stylistic grounds appears to belong to a Five Boroughs group.³⁸ After 895, when St Edmund coins were being struck further south and regal coins of Sigefrith and Cnut were being struck in York, the Five Boroughs probably continued striking an imitative coinage, in particular the *Orsanaforda* type and the large group of Canterbury imitations may well come from this area.³⁹ These were substantial coinages, but after c.905 there seems to be no significant group of coins that can be given to the Five Boroughs between the deposit of the Cuerdale hoard and the Sword types of the 920s. Did Lincoln remain an active mint? Might the production of St Edmund coins have extended that far north? One critical hoard from the region could change our perception of this, and even reveal a coinage of which little now survives.

At present the evidence suggests that minting in the Five Boroughs, and probably only at Lincoln itself, was resumed c.920 with the Anonymous Sword type, possibly as a reaction to the Anglo-Saxon reconquest of the rest of the Southern Danelaw. In the 920s Lincoln would have been the centre of a fairly small territory remaining under Scandinavian rule south of the Humber, yet Lincoln was growing in importance as a town, and that alone may largely account for the substantial coinage struck there in the 920s and subsequently.

³⁶ I would draw a distinction between the deliberate copying of successful neighbouring coinages during an imitative phase of a newly established coinage, when this could enhance the status of the new coinage, and a case like this where an independent coinage was already established, but copying was for some reason tolerated.

³⁷ Mossop 1970, pl. I, nos. 1-6 (Lincoln mint); Grierson 1957, 488, no. 35 and Pl. 28, no. 35, now in Fitzwilliam Museum, ex Blunt (Leicester mint).

³⁸ Blackburn 1989, 18-20.

³⁹ Blackburn 2001a, 131-2; Blackburn 2005, 22.

I have commented previously on the relative size of the coinages of Scandinavian York from the late ninth to the mid-tenth century.⁴⁰ For many of the issues the surviving sample is too small for any useful estimate of the original number of dies to be given, and where figures can be ventured, the probability range may still be wide (Table 8). However, there is enough evidence to show that the issues of Scandinavian York were very substantial. For the later period, 939–54, the number of dies being used per year seems to have equalled or even exceeded the rate of die use at York between Edgar's coinage reform and the Norman Conquest. Ragnald's coinage also seems to have been quite large, considering it lasted for only two years or so. By contrast, the Sword St Peter coinage was significantly smaller, especially if it was spread over six years. Thanks to the Bossal hoard, this issue has the best survival rate of any since the Cuerdale hoard, and although today the coins are quite plentiful, their strong die-linking indicates that the number of dies in use was not large.

TABLE 8. Die Estimates

Coinage	Length of issue (years)	No. of extant coins	No. of dies represented		Estimated total dies	
			Obv.	Rev.	Obv.	Rev.
Early York regal	10	3,043+	c.250	c.400	c.275?	c.550?
Swordless St Peter	15	c.200	n.a.	n.a.	n.a.	n.a.
Ragnald I	2	23	19	22	52	too
					[28–400]	uncertain
Sword St Peter	6	83	38	56	48	95
					[40–59]	[67–156]
Anon (Circumscription)	1–2?	5	5	5	too	too
Sword type					uncertain	uncertain
St Martin	1–2?	7	4	6	too	too
					uncertain	uncertain
Sihtric Caech	4–5?	17	16	16	too	too
					uncertain	uncertain
All Southern Sword types	6	29	25	27	too	too
					uncertain	uncertain
Athelstan (York issues)	12	c.150?	n.a.	n.a.	n.a.	n.a.
Anlaf Raven type	2	36	31	35	122	too
					[68–550]	uncertain
Triquetra type	2	20	19	20	too	too
					uncertain	uncertain
Circumscription Cross/Cross Moline types	2	16	13	16	41	too
					[21–444]	uncertain
Anlaf Southumbrian types	2	12	12	12	too	too
					uncertain	uncertain
Eric Horizontal type	2	23	15	18	26	51
					[17–54]	[31–152]
Anlaf (restored) types	2	26	20	20	59	59
					[34–233]	[34–233]
Eric Sword type	2	16	15	14	too	too
					uncertain	uncertain

Notes:

1. This table is adapted from Blackburn 2004, Table 5.

2. The die-studies are drawn from Lyon and Stewart 1961; Blunt and Stewart 1983; Stewart and Lyon 1992; *CTCE*, ch. 14; and Appendices 1–3 below.

3. In the 'Estimated dies' columns, the most probable estimate of 'equivalent dies' is given, and below in square brackets the range implied by the 95% confidence limits. The number of 'equivalent dies' means the total number of dies assuming that the unknown dies struck on average the same number of coins as those represented in the surviving material. Almost certainly they will have struck fewer, so the result will be an under-estimate of the original dies, but this is a fairer way of representing the likely size of the coinage. Calculations are based on Esty 1986, formulae J2, J3 and K1. For the Early York regal coinage information about singletons and doubletons has not been published, and the estimates of dies are a guess.

⁴⁰ Blackburn 2004, 342–4.

For the Southumbrian issues of the 920s the survival rate is poor, and no die estimates can be calculated. Yet, from the very low degree of die-linking among them (29 coins of all the southern Sword types were struck from 25 obverse and 27 reverse dies), we can say that the coinage must have been quite substantial, and probably rather larger than the York Sword St Peter issue. It is fascinating to think that in the 920s Lincoln mint may have been more productive than York – reflecting the situation that would often occur in the eleventh century, when York and Lincoln would jostle for second and third place in the national ranking of mints.⁴¹

The post-939 coinages of York

The death of Sihtric in 927 provided Athelstan with an opportunity to move on York, ousting Sihtric's short-lived successor Guthfrith, who was possibly his brother. We are told that one of Athelstan's first tasks was to destroy the city's defences, and he seems to have been equally determined to remove its Scandinavian coinage and replace it one in his own name, just as we have seen Edward the Elder had done in East Anglia after 918. Six moneyers struck Athelstan's first issue at York, the Church type, some it seems having been drafted in from mints in the Midlands,⁴² but it was concerted production of the Circumscription Cross type under the 'master moneyer' Ragnald that probably completed the recoinage. Interestingly the move to the full English weight standard was achieved in two stages, the Church type taking it from c.1.30 g to c.1.45 g, and a few years later the Circumscription Cross type raising it to the full c.1.6 g standard.⁴³ Again there may be a parallel from 918 in the way the East Anglian Portrait issue respected the prevailing local standard.

Just as Athelstan was determined to establish an Anglo-Saxon monetary system at York in 927, so Anlaf Guthfrithsson (939–41), on the restoration of Norse rule in 939, was moved to bring back a distinctive Scandinavian coinage struck to the previous c.1.3 g weight standard. His Raven coinage had both a Scandinavian design and its use of the title *cununc* for 'king' today represents the earliest surviving use of Old Norse in the Roman alphabet. This was a large coinage – estimates indicate at least one hundred obverse dies in use during one or two years (Table 8) – and it could well have succeeded in replacing the stock of Athelstan's coins circulating in York.

The following issue, the Triquetra/Standard type of Anlaf Sihtricsson (941–44/5), Sihtric Caeoch's son, struck with two other kings, a Sihtric II (c.943–4) and Ragnald II Guthfrithsson (943–44/5), had similar properties – employing Scandinavian iconography, the Old Norse title *cununc* and minted at a lighter weight standard. It too was struck on a very substantial scale, but perhaps the viability of maintaining an independent system at York had become unviable, as the third issue – Anlaf Sihtricsson's and Ragnald II's Cross types – was struck to a higher standard, c.1.4 g, comparable with contemporary coins of Edmund elsewhere in England, where the standard was gradually falling. Subsequent issues at York, whether under English or Scandinavian authority, used the prevailing English standard of the day.

The post-939 coinages of the York kingdom have been carefully described by Blunt, Stewart and Lyon in *CTCE*, with a corpus of known specimens for each type.⁴⁴ Since the publication of *CTCE* in 1989 there have been no fresh hoards with coins from this phase of Scandinavian rule. There have, however, been several single finds including some significant coins. Three coins of the Triquetra/Standard type are of particular note. One of Sihtric II is only the third specimen known for this ruler (Fig. 3, no. 2). It was found near Doncaster in 1990⁴⁵ and is by the same moneyer, Farman, as the example found in the York (Coppergate) excavations in 1981. A third specimen of the type for Ragnald Guthfrithsson (Fig. 3, no. 3) was found in 2002 at Middleton on the Wolds, E. Yorks., and provides the name of a new moneyer, Durant, for the Scandinavian coinages.⁴⁶ Another

⁴¹ Metcalf 1980, 32–3, 49. On Lincoln as a ninth-century town, see Sawyer 1998.

⁴² For a discussion as to whether some of the Church type coins were struck in the Midlands rather than York see Blunt 1974, 88–9, 92; Blackburn 2004, 335.

⁴³ *CTCE*, 235–45.

⁴⁴ *CTCE*, ch. 14, 211–34, building on the work of Dolley 1957–8; Dolley and Yvon 1971; Dolley 1978. The sequence of Anglo-Saxon and Viking issues at York is conveniently summarised in Stewart 1988, 204–6.

⁴⁵ Sotheby, 4 October 1990, lot 398; EMC 2001.1065.



Fig. 3. The recent finds of York coins of 939–44/5.

significant example of this coinage (Fig. 3, no. 1) is in the name of Anlaf Sihtricsson. It was found near Beverley, E. Yorks., in 2004,⁴⁷ and is by the rare moneyer Ascolv, who is known from only one other coin of Anlaf – a die-duplicate in the British Museum – and one of Sihtric II. From the next issue – Anlaf's Circumscription Cross type – a fragmentary specimen found by Peter Woods at Grendon, Northants, in 2000, provides a fourth example by the moneyer Rathulf (Fig. 3, no. 4).⁴⁸

The Final Phase of Scandinavian Rule in the Five Boroughs

The Five Boroughs were held under Scandinavian rule for one final phase, following Anlaf Guthfrithsson's successful military campaign in the region in 940, and although it was lost again within two years by Anlaf Sihtricsson, their hold was secure enough for the local mints to acknowledge the authority of the York king on the coins. Four groups of coins have been attributed to the Five Boroughs during this period: three continue typical Anglo-Saxon designs used under Athelstan from separate mints – Derby, and probably Lincoln and Stamford – while the fourth is a coin of Anlaf Guthfrithsson's Raven issue apparently struck at a Southumbrian mint, possibly Lincoln.⁴⁹

Each group is known from just a handful of coins, so that the recent discovery of what appears to be a further specimen, albeit unusual and somewhat enigmatic, is a welcome event, and the more so when it is the first round halfpenny known for the series. This coin (Fig. 4, no. 1) was found by a metal-detector user in 2005 by the east bank of the Dee Estuary, near Neston (Flintshire), at the base of the Wirral, and it has been acquired by the Fitzwilliam Museum.⁵⁰ It combines an obverse in the name of Anlaf Guthfrithsson (939–41) or Anlaf Sihtricsson (941–44/5) with a reverse from the time of Ragnald I (919–20/1).

Obv. +ANLAF CV[] NEO (double struck and moved in the die), central small cross; with a double border outside the inscription.

Rev. $\text{+E\text{A}TRICE C[]}$ (retrograde), around a Carolus monogram (with reversed S; the whole monogram may be reversed, i.e. facing left).

Weight: 0.68 g; diam. 17 × 18 mm.

The obverse inscription is complicated to read as the coin was struck once, the obverse die twisted about 45°, and struck again. The coin literally reads $\text{+ANL\text{A}/NL\text{A}FCV/N\text{E}O}$, but having taken account of the dislocation (indicated by / and /) and repetition of the letters $\text{NL\text{A}}$, it gives as the legend *Anlaf Cununc o* (the 'o' being a space-filler). This is a typical form for York coins of Anlaf Guthfrithsson and Anlaf Sihtricsson in the period 939–44/5, and the design with a small cross on the

⁴⁶ Lyon and Holmes 2004. The coin was acquired by the Yorkshire Museum.

⁴⁷ Coin Register 2005, no. 168, *BNJ* 75 (2005); EMC 2004.0181.

⁴⁸ Coin Register 2000, no. 88, *BNJ* 70 (2000); EMC 2000.0048.

⁴⁹ *CTCE*, 216–21.

⁵⁰ I am grateful to Mr Roderick Blunt for recognising the significance of this coin and referring the finder to me at the Fitzwilliam Museum. I am also grateful to Dr Stewart Lyon for discussing the interpretation of this coin with me.



Fig. 4. The Anlaf-Ragnald I mule halfpenny (no. 1) and related coins.

obverse would associate it with the last of the three issues of this period, the Circumscription Cross types. However, the style of epigraphy, with simple small chunky letters, a lack of wedges at the points of the Vs and As, and an inverted L, is not that normally found on York coins. Extra letters or symbols are often found at the end of the legend on York coins, but 'o' or an annulet is unusual.

There is a closer parallel for the exact form of the obverse inscription which is on the Circumscription Cross coins in the name of Anlaf struck at Derby. Four coins have been attributed to this mint in the period 940–2 when Anlaf Guthfrithsson and Anlaf Sihtricsson held parts of the Midlands.⁵¹ Two of the four have an obverse inscription that exactly parallels that of the new coin, with an inverted L, a round C and square E at the beginning and end of *cununc* and a terminal O or annulet (Fig. 4, no. 2).⁵² A fragmentary specimen in the Manx Museum has a longer but related inscription, again with the round C and square E.⁵³ The simple letter forms of the new coin are also similar to those on the Derby coins of Anlaf and Athelstan,⁵⁴ although they appear more cramped. The reason for this is that the obverse die is evidently much smaller than those used for normal coins of this period: the diameter of the inner circle is 7 mm compared to the usual 12 mm or 13 mm, and the diameter of the outer border is 17 mm compared to 21 or 22 mm normally. However, these dimensions are comparable to those of the few known round halfpennies of Athelstan (Fig. 4, no. 3) and Edmund.⁵⁵ The weight of the new coin is 0.68 g, which is appropriate for a halfpenny.⁵⁶ This is the first round halfpenny in the Anglo-Scandinavian coinage to be recorded since the St Edmund issue, in which they were quite prolific. On stylistic grounds, then, an attribution to Derby seems the most probable one.

⁵¹ For discussion of this group and a listing of the coins see *CTCE*, 216–18, 229.

⁵² *SCBI* 34 (British Museum) no. 1245 and Rome. Forum hoard no. 446 (both illus. *CTCE*, pl. 27, nos 1–2).

⁵³ Carlyon-Britton 1908, 86–8 and pl. 1, no. 1.

⁵⁴ For Derby coins of Athelstan see Blunt 1974, pl. 7, nos 161–74. The style used at Derby by Edmund after he had retaken the area is somewhat different: see Pagan 1995.

⁵⁵ Two halfpennies of Athelstan are known, one of the moneyer Clip (Blackburn 1993) and one of Rihard (Coin Register 2003, no. 167, *BNJ* 74 (2004)). For Edmund there are also two, by the moneyers Baldwin (*SCBI* 34, no. 347) and Biorhtulf (*CTCE*, pl. 9, no. 102).

⁵⁶ This is comparable to the weight of halfpennies of Athelstan and Edmund, and might seem on the high side for a halfpenny of Viking York, but at Derby under Anlaf the mint seems to have retained Athelstan's weight for the penny, since Anlaf's coin of the moneyer Sigar (*SCBI* 34, no. 1245) weighs 1.53 g.

The reverse is most unusual. On first sight it is very difficult to understand, as the design and letters appear to be drawn in outline. Eventually, one can decipher it as a *Carolus* monogram, surrounded by a degenerate York mint signature *Earice C(ivitas)*, retrograde. This monogram was used on the York coinage of Cnut c.900 and again on a rare late group of Swordless St Peter coins and on the first two types of Ragnald I, i.e. in the period c.918–20.⁵⁷ On these latter three sequential issues the form of the monogram becomes progressively more stylised and simplified, while the reverse legends progress through various forms from *HEBRÆICIT* through *HEARICECT* to *HEIORÆCII*. Among the extant specimens, the design of the monogram and inscription on the new coin most closely matches one of the St Peter/Monogram coins (*SCBI* Copenhagen no. 600; Fig. 4, no. 4) or the two of Ragnald's first issue, the Bust/Monogram type (*BMC* 1082–3; Fig. 4, no. 5).⁵⁸ These examples are not retrograde, but the inscription and the position of the letters would be very similar to those on the new coin if reversed. Reversal of the inscription or the monogram or both does occur on the St Peter/Monogram type and Ragnald I's types.⁵⁹

The reverse die used for the new Anlaf coin, then, appears to have been an official one from the around the beginning of Ragnald I's reign, i.e. c.918–20. It must have been twenty years old when used to strike this coin of Anlaf, and its age explains the strange appearance of the reverse. The coin itself is of good solid silver and under a microscope shows no signs of corrosion, yet the reverse design and inscription is damaged, and it would seem that the die must have been so rusty that centres of letter strokes and elements of the monogram had become pitted and their surfaces flaked, leaving their harder edges to give an outline or sketch effect. In terms of size, this Monogram die was quite a good choice for a halfpenny as the diameter of the outer border (19 mm) was smaller than on current penny dies from the Midlands, hence most of the design and inscription is on the flan. There is one further twist, however, as it seems from the die-linking statistics that in both the Swordless St Peter and Ragnald coinages the Monogram side of the coin may well have been the lower (longer lasting) die, so technically the obverse.⁶⁰ If so it would have been necessary to cut off the tang that goes into the anvil on one of the dies before they could be used together.

What was the status of this coin, which combines an obverse of c.940 probably of Derby with a rusty die from the earlier Scandinavian kingdom of York, used together to strike a rare halfpenny denomination? Well, Derby was an odd mint during the brief revival of Scandinavian rule in 940–2, as Blunt, Stewart and Lyon have explained.⁶¹ Of the four coins of Anlaf previously known, two are by regular Derby moneyers, but the other two have unusual reverses. One from the Forum hoard has the name and titles of King Athelstan retrograde, while the other from the Chester 1950 hoard has a retrograde obverse inscription and a blundered reverse. The status of the new halfpenny mule is likely to be similar to these two coins. However, these have also to be set in the context of a larger group of imitative coins in the name of Athelstan, some with double obverses, some copying coins of southern mints, and others based on coins from the Midlands, particularly Derby, Shrewsbury and Chester. Blunt has suggested that part of this group of irregular coins may be associated with Derby at the time that Anlaf took control.⁶² Whether this was sanctioned or encouraged by the Scandinavian rulers or represents irregular and opportunistic activity by some of the official Derby moneyers, or other people, is unclear. This whole group of irregular issues is ripe for further research. If the obverse die used for the new coin was an official halfpenny one, it would originally have had a reverse to match it. One could speculate on various circumstances in which the older York die came to be used instead. However, it is surely significant that someone had acquired and kept an old, rusty coin die from the heyday of the earlier York kingdom, and produced it for use after the restoration of Norse rule in East Mercia. For those involved with its production, this coin was no doubt heavily symbolic, an augur for the success of the new dynasty. Alas it was not to last!

⁵⁷ Stewart and Lyon 1992, 58–9; Blunt and Stewart 1983. I have suggested that the St Peter/Monogram type may have been introduced by Ragnald at the beginning of his reign to mark a reform of the weight standard; Blackburn 2004, 334.

⁵⁸ These two coins are from one reverse die, *BMC* 1082 being illustrated here; Blunt and Stewart 1983, nos 2–3.

⁵⁹ Cf. Blunt and Stewart 1983, nos 13 (monogram), 15 (inscription and monogram); pl. 23, A (St Peter/Monogram with reversed monogram).

⁶⁰ Stewart and Lyon 1992, 54; Blackburn 2004, 335 (based on the statistics in Blunt and Stewart 1983, 146). The evidence that this was the lower die is not entirely conclusive, as the survival rate in these issues is poor.

⁶¹ *CTCE*, 217–18.

⁶² Blunt 1974, 108–9, 113.

Conclusions

In this paper I have sought to examine, in the light of new find evidence, what impact the Anglo-Saxon reconquest of the Danelaw and the assimilation of the Scandinavian territories had on the production and circulation of coinage in the decade after 917. Several new hoards from East Anglia have demonstrated the homogeneity of the currency under Scandinavian rule, and the effectiveness with which Edward the Elder swept this away after 917. The finds also point to a dramatic difference in the treatment of the southern and northern parts of East Anglia. If we take the Brantham hoard at face value, in the south the currency was fully integrated with the monetary system of Mercia and Wessex, through a recoinage organised from another part of the reconquered Danelaw, the north-east Midlands. By contrast, the new Portrait coinage in the north, although in the name of Edward, has features suggesting that the previous Scandinavian mint administration had retained responsibility for the coinage. Was this a result of incompetence on the part of Edward's government, was it a recognition of sensitivity in the region, or did Edward's writ not run fully in all parts of his extended kingdom?

At any rate, the numismatic evidence makes clear that Edward's authority did not run to parts of the East Midlands, and that Lincoln in particular remained a Scandinavian mint under the authority of York kings for much of the 920s. Even in areas that had been absorbed into Mercia by Æthelflaed and Edward during the 910s, Scandinavian culture, as indicated through monetary practice, survived to some extent. The use of Anglo-Scandinavian coins, and even remnants of the dual economy (coinage and bullion), are indicated not only by the hoard from Thurstaston, near Leicester, but also by the scattering across the East Midlands of single-finds of Sword coins of the 920s.⁶³ The special status that the Five Boroughs enjoyed in the Danelaw throughout the Scandinavian period is well demonstrated through the coinage. It remained distinct from the two main kingdoms of the southern and northern Danelaw, although for much of the time it fell under the control of the York kings. The pattern of minting there *c.* 885–*c.* 927 and again in 940–1 has been elusive, but with new finds and further research its products are becoming clearer.

If Edward the Elder's determination to renew the coinage of the southern Danelaw was impressive, then so too was Athelstan's when taking York in 927, and Anlaf Guthfrithsson's on his recovery of it in 939. Each wished to impose their own monetary systems. The city's traders must have grown weary of change, though by the mid-940s things had settled down, and although authority continued to oscillate between Anlaf Sihtricsson, Edmund, Eadred and Eric, the coinage conformed essentially to the Anglo-Saxon system. Even Eric's last ditch reversion to the iconography of the Sword types of the 920s was not accompanied by a return to the Anglo-Scandinavian weight standard.

It is no wonder that the coinages of Scandinavian York in the period 939–54 have only a low survival rate, since their area of official circulation was limited to Northumbria (broadly the modern county of Yorkshire). Most of the pieces that have survived are ones that escaped into the bullion economies of the Irish Sea or Scandinavia. With more specimens there would be much more to learn, but our knowledge of the political history of the period is equally wanting. Recently Peter Sawyer reviewed the documentary sources for the period 947–54 and demonstrated that the sequence of changes in rule at York between Eadred, Anlaf and Eric generally accepted by historians is only one of several possible interpretations, and he concluded with the hope that numismatic evidence might provide the decisive arguments the historians lacked.⁶⁴ Unfortunately, at present it cannot. Still more recently Clare Downham has questioned the identity of the Eric who twice ruled in York and suggested that rather than being the colourful ex-king of Norway known as Eric Bloodaxe, he is more likely to have been a less glamorous member of the Dublin royal house.⁶⁵ This Anglo-Scandinavian coinage will continue to provide material for fruitful research for generations to come.

⁶³ See n. 31 above.

⁶⁴ Sawyer 1995. See also Downham 2003.

⁶⁵ Downham 2004.

APPENDIX 1

CORPUS OF COINS OF THE ANONYMOUS SWORD TYPE

Note on Arrangement: Appendices 1–3 present die studies. The numbers in the first column represent different die combinations. The second column designates the dies with an upper case letter for the obverse die and a lower case letter for the reverse. The legends and descriptions of the obverse and reverse are set out in columns three and four, and below them each specimen from that die combination is cited as a), b), etc. All the coins are illustrated on Pls 28–30.

Circumscription Sword/ Hammer type

A1	Aa	†C̅IOIΛIC̅AIE (retrograde) Sword without spine	†C̅IOIOLIC̅AIA (retrograde) Hammer
		a. Cambridge; ex Blunt; ex Glasnevin hoard 1838. Stewart 1982, no. 1; <i>CTCE</i> , pl. 26, no. 23. 1.25 g (19.3 gr).	
A2	Bb	†EIE[]IVE Sword with spine	†EVIVE[] Hammer
		a. Bangor University collection; ex Bangor hoard 1894. Blunt 1954, no. 5; Stewart 1982, no. 2. 0.82 g (12.7 gr), fragment.	
A3	Cc	†ENVEI[] Sword without spine	[]HIDIVI[] Hammer
		a. Stewartby collection; ex Grantley lot 958b; found near Cambridge. Stewart 1982, no. 3.	
A4	Dd	†ERDVEΛRIX Sword without spine, 2 pellets in field	†EIIIVE-RhE Hammer
		The obverse inscription seems to be based on those of Edward the Elder reading †EADVVEARD REX. a. British Museum; ex Morley St Peter hoard (<i>SCBI</i> 26, no. 39). Stewart 1982, no. 4. 1.22g (18.9gr), 180°.	
A5	Ee	[]RAEVEI[] (E reversed) Sword without spine	[]IDE-TER[] (retrograde except D) Hammer
		a. Dublin (NMI); ex Dunmore Cave hoard 1973. Dolley 1975, fig. 5b; Stewart 1982, no. 5. 0.70 g (10.8 gr), broken fragment, 90°.	

APPENDIX 2

CORPUS OF COINS OF ST MARTIN

Sword/Cross type

M1	Aa	∴ / SCI- M / ARTIN / ' T ' (T inverted) Sword right, without spine Same obv. die as M2–3	†LINCOLL'A' CIVT'A' Voided cross, interlaced clockwise, with linear cross in centre
		a. National Museum, Copenhagen (<i>SCBI</i> 4, no. 620); ex Terslev hoard 1911. Mossop 1970, pl. I.10; Stewart 1967, no. 1. 1.21 g (18.6 gr), 180°.	
M2	Ab	∴ / SCI- M / ARTIN / ' T ' (T inverted) Sword right, without spine Same obv. die as M1 and M3	†LINCOLL'A' CIVT'A' Voided cross, interlaced clockwise, cross in centre Same rev. die as M3
		a. Oslo University Coin Cabinet; B.F. Brekke collection; ex Spink 1978. Cited in Norweb sale (Spink 13 June 1985, note to lot 34 'appeared in commerce in 1978'); <i>CTCE</i> , pl. 26, no. 18. 1.42g (21.9gr), 280°.	
M3	Ab	[] / ARTIN / ' T ' (T inverted) Same obv. die as M1–2	[]A' CIVT'A' Voided cross, with linear cross in centre Same rev. die as M2
		a. National Museum of Ireland; ex Dunmore Cave hoard 1973. Dolley 1975, fig. 4b. 0.46 g (7.1 gr), fragment, 270°.	

M4	Bc	∴ / SCIT M / ARTI / ' T ' (T inverted) Sword right, without spine Same obv. die as M5	+LINCOLIA CIVT Voided cross, interlaced anti-clockwise, with linear cross in centre
		a. Ex Norweb (Spink sale 45, 13 June 1985), lot 34 (SCBI Norweb no. 129); bt Baldwin 1966; ex Mossop; ex Bagnall; ex Lockett 451; ex Bascom 31; ex McClean ('Astronomer') 121; ex Montagu 374; ex Brice; ex Wigan; ex Pembroke (d.1733; sold 1848) 30. Mossop 1970, pl. 1.8; Stewart 1967, no. 2. 1.29 g (19.9 gr), 270°.	
M5	Bd	∴ / SCIT M / ARTI / ' T ' (T inverted) Sword right, without spine Same obv. die as no. M4	+LINCOLIA CIVT Voided cross, interlaced anti-clockwise, with linear cross in centre
		a. National Museum, Copenhagen (SCBI 4, no. 621); lent Bruun (d.1923) no. 247. Mossop 1970, pl. 1.9; Stewart 1967, no. 4. 1.24 g (19.1 gr), 90°.	
M6	Ce	∴ / SCIT M / ARTI / ' T ' (T inverted) Sword right, without spine	+LINCOLIA CIVT Voided cross, interlaced anti-clockwise, with linear cross in centre
		a. British Museum (BMC 138, no. 698); acq. 1753; ex Sir Robert Cotton (1571–1631). Dolley 1965, no. 27; Mossop 1970, pl. 1.7; Stewart 1967, no. 3. 1.13 g (17.5 gr), per BMC 1.21 g (18.6 gr), 180°.	
M7	Df	[] / SCIT M / ARTI / ' T ' (T inverted) Sword right, without spine	+INCOLIA CIVT Voided cross, interlaced clockwise, with linear cross in centre
		a. Lincoln (SCBI 27, no. 5); ex Hill; ex Grantley 934; ex Rashleigh 124; ex Cuff 384; ex Rich 29; ex Dimsdale 344; ex Hollis (d. 1774; sold 1817) 66. Mossop 1970, pl. 1.11; Stewart 1967, no. 5. 1.07 g (16.5 gr), chipped, 270°.	

APPENDIX 3

CORPUS OF COINS OF SIHTRIC CAOCH (920/1–27)

Sword/Cross type

SC1	Aa	∴ / SITR / IC REX / ∴ Sword right, without spine, cross at tip	+CASTDAEQRT (Castræ Eort?), retrograde Pellets and crescents in opposed angles of cross. Same rev. die as SC2.
		a. British Museum; ex Lockett (1955) 439; ex Bascomb (1914) 46; ex Rashleigh (1909) 170; ?ex Stretton (1855) 409; ? found in Ireland. Dolley and Moore 1973, no. 8. 1.13 g (17.5 gr).	
SC2	Ba	∴ / SITR / IC REX / ∴ Sword right, without spine, cross at tip	+CASTDAEQRT (Castræ Eort?), retrograde Pellets and crescents in opposed angles of cross. Same rev. die as SC1
		a. Copenhagen (SCBI 4, no. 627); ex Bruun 192; ex Montagu (1895) 423; ex Brice; ex Borghesi (1880) 1372; ? found in Italy, possibly from the Rome (1846) hoard (Blunt 1986, 162 and 169). Dolley and Moore 1973, no. 9. 1.50 g (21.3 gr).	
SC3	Cb	~ / LVDO / SI ↓ IRC (where ↓ stands for a mallet, representing T), sword right, without spine, 3 pellets at tip	+ERIC M:OTI Pellets and crescents in opposed angles of cross
		Moneyer Eric, attributed to Lincoln under Athelstan (HT1) and Eadmund (HT1(E)). a. British Museum (BMC 238, no. 1113); ex Glasnevin hoard 1838. Dolley and Moore 1973, no. 7. 1.11 g (17.2 gr).	
SC4	Dc	+ / SIſſE / I RM / + (where ſſ stands for a mallet, representing T), sword right without spine, with cross at tip.	+ ERBI CEI CRR Cross with pellet in 1, 3 and 4, crescent in 2.
		a. Cambridge; ex Thurstaston hoard, found 23 September 1998. Blackburn 2001, no. 3. 1.06 g (16.4 gr), chipped, bent and broken, since repaired.	

- SC5 Ed • / I ERI / D↓II + ICIA RDol ··E·
(where ↓ stands for a mallet), Cross with pellet in 1 and 4, annulet in 2 and 3.
sword right without spine, with
trefoil at tip.
a. Cambridge; ex Thurstaston hoard, found 25 September 1998. Blackburn 2001, no. 4. 0.89 g (13.7 gr).
- SC6 Fe [] I RI / [] ↓EI [] ·ICERI[]
(where ↓ stands for a mallet), Cross with pellet in 1, 2, and 3, T in 4.
sword right without spine, with
inverted T (Thor's hammer) at tip.
a. Cambridge; given by Brian Kimberley and David Petty 1997; ex Thurstaston hoard, found 26 August 1994, Blackburn 2001, no. 5. 0.51 g (7.9 gr), fragment.
- SC7 Gf • / SETR / ICID+ / ~ (E reversed) +IEDREICIRI
Sword left without spine, with cross by Cross with pellet in each angle.
pommel and three pellets at tip.
Same obv. die as SC8.
a. Cambridge; ex Thurstaston hoard. Found 18 December 2000. Blackburn 2001, no. 1. 1.15 g (17.7 gr), bent.
- SC8 Gg [] / [] I+ [] RIDE[]
Sword left without spine. Cross with pellet in one quarter.
with cross by pommel.
Same obv. die as SC7.
a. Cambridge; given by Brian Kimberley, David Petty and F. Chantrell 2002; ex Thurstaston hoard, found 2 December 1999. Blackburn 2001, no. 2. 0.20 g (3.1 gr), fragment.

Sword/Hammer type

- SH1 Aa [] ITR / [] C RE [] AREMO[]
Sword right, without spine
Moneyer Are, attributed to Lincoln under Athelstan (HT1 (NEI), HT1 (E)), Eadmund (HT1 (NE I), HT1 (E)) and Eadred (BC).
a. British Museum; ex H.R. Dawson (1842), lot 216; ?ex Glasnevin hoard 1838. Dolley and Moore 1973, no. 1. Fragment.
- SH2 Bb SITR / IC REX +SIBRANT·
Sword right, without spine
Moneyer Sibrant.
a. Stockholm; found at Birka (grave 845), 1879. Dolley and Moore 1973, no. 2. 0.89 g (13.7 gr), chipped.
- SH3 Cc SITR / IC R[] +ADEI[] DM[] (retrograde)
Sword right, without spine
Moneyer Æthelferth, at York under Athelstan (BC) and Anlaf Guthfrithsson; or Ædelwerd (?) attributed to Lincoln under Eadred (BC) and Eadgar (HT1 (NEV)); or moneyer Æthelred, attributed to Leicester ? under Eadred (HR1) and Eadgar (R/HC4)
a. Bangor University collection; ex Bangor hoard 1894. Blunt 1954, no. 4; Dolley and Moore 1973, no. 3. 0.86 g (13.2 gr), fragment.
- SH4 Dd • / SITR / ICIDII / • +IOIIIOIIAIII
(lower line retrograde)
Sword left, with spine and double hilt
a. Cambridge; bt finder 1995; found at Swallow, Lincs. 1994 (*Fitzwilliam Museum Annual Report* 1995, p. 27). 0.75 g (11.6 gr), chipped and bent.
- SH5 Ee EDIIA / IDIED +HANA MO·T·
Sword left, with spine
Moneyer Manna attributed to Lincoln under Athelstan (HT1 (NEI), HT1 (E)), Eadmund (HT1 (NEI), HT1 (E), HR1), Eadred (HT1 (E), BC), Eadwig (BC) and Eadgar (HT1 (NEV)).
Stewart (1982, 112) suggested this coin should be associated with Sihtric's coinage notwithstanding the blundered legend, which he thought might perhaps be reflecting the name of (St) Edmund. However, in the East Anglian or St Edmund coinages Edmund's name had not occurred as a Two-Line inscription, and the absence of 'Sci' before the name would imply that an invocation of St Edmund was not intended in this inscription.
a. Edinburgh (SCB/ 6, no. 71); ex Skye hoard (1891). 1.06 g (16.3 gr).

Sword/Mallet type

SM1	Aa	∴ / SITEI / RCDIX / ∴ (top line retrograde, R reversed and inverted) Sword left, with spine and double hilt a. York; found in excavations at Coppergate, York 1980. Pirie 1986, no. 44. 1.07 g (16.5 gr).	†HIEBIAHIOEIX Solid handle to mallet
SM2	Bb	∴ / SITR / IC REX / ∴ (R inverted) Sword right, with spine and double hilt a. Unknown (probably disintegrated); found Threkingham, Lincs, 1794. Dolley and Moore 1973, no. 4. Known only from a line drawing. Weight not recorded.	†HIEIVIIIOIMI Solid handle to mallet
SM3	Cc	∴ / †ITR / RCDL / ∴ (in bottom line R reversed and inverted) Sword right, with spine and double hilt a. Edinburgh (SCBI 6, no. 70); ex Skye hoard (1891). Dolley and Moore 1973, no. 6. 1.39 g (21.4 gr).	†HIEVICRIMOT Hollow handle to mallet
SM4	Dd	∴ / †ITR / RRC / ∴ (in bottom line R's inverted and first R reversed) Sword right, no spine a. Copenhagen (SCBI 4, no. 594); ex Bruun; ex Montagu (1895) 424; ex Brice; ex Bergne (1873) 101?; ? ex Hurt (1853) 40 or 43; ?found in Derbyshire. Dolley and Moore 1973, no. 5. 1.15 g (17.7 gr), 180°.	†HINEIAHIOIN Hollow handle to mallet, pellet on mallet head

Imitation of St Peter Sword Cross type

ImStPI	∴ + ∴ / SCIE / TR↓MO / ∴ ∴ Sword right, with spine and double hilt; cross at tip a. Copenhagen (SCBI 4, no. 584); ex Bruun 217; ex 'Astronomer' 118; Montagu (1895) 440; ex Brice; ex Bergne (1873) 99. Stewart and Lyon 1992, no. 19. 1.15 g (17.7 gr), 90°.	†EBOIR~ACEII (lozenge O) Large central cross
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Abbreviations

BMC	Keary 1887; Grueber and Keary 1893
CTCE	Blunt, Stewart and Lyon 1989
SCBI	<i>Sylloge of Coins of the British Isles</i>

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Anonymous Sword/Hammer type



St Martin's type



A. With
SITRIC RE

Cross type



Hammer type

B. With
Mallet in legend

Cross type



PLATE 30

Sihtric Caech (cont.)

C. With  and related coins

Cross type



SC7



SC8



SC7

Hammer type



SH4



SH5



Mallet type



SM1



SM2



SM3



SM4



St Peter imitation



ImStP1



ImStP1

SILVER WEIGHT AND MINTED WEIGHT IN ENGLAND c.1000–1320, WITH A DISCUSSION OF DOMESDAY TERMINOLOGY, EDWARDIAN FARTHING AND THE ORIGIN OF ENGLISH TROY

STEWART LYON

Pegolotti

ONE April day in the year 1317 Francesco Balducci Pegolotti, an official of the great Florentine banking house, the Company of the Bardi, arrived in the London office of his firm to begin a four-year spell as manager of its English operations. For the previous two years he had held a similar post in Flanders and Brabant. After his tour of duty in London was over he spent several years in Cyprus, where he took a keen interest in trade with China, before returning to Florence for the culmination of his career, which ended with the Company's bankruptcy in 1347.

During his long working life Pegolotti assembled much detailed information on the different systems he encountered for weighing and measuring commodities. As a banker for international commerce, he needed to understand the systems used in his host country. He also had to know how they related to those of other cities and states with which his host country would trade. In no respect was this knowledge more important, or required with greater precision, than in the weights used for precious metals.

Although Pegolotti finished his manuscript in about 1340, it clearly embodies notes compiled over many years. It has survived in the form of a single copy, completed in Florence in 1472, which is stated to have been transcribed from a copy of a copy of the original, a degree of copying that has to be borne in mind when other evidence appears to contradict one of his observations. The copy was discovered in the eighteenth century and a modern text was published in 1936 by the Mediaeval Academy of America.¹

Pegolotti recorded much information about Britain. For example, he listed the number of sacks of wool produced by each abbey and convent in a particular year (unfortunately unspecified) and the price obtained for it in Flanders, which was clearly the destination of much if not most of the export trade. He also described various systems used in London for weighing commodities. However, our concern is with what he had to say about gold and silver.

It is the year 1320 or thereabouts and it is no surprise to find Pegolotti writing that all English coins are of silver and are called sterling. He says they are eleven ounces fine, and are of three kinds. There are sterling pennies, of which twenty shillings by number make the pound weight of the Tower mint and thirteen shillings and four pence (in other words, 160 pence) are reckoned to the mark; there are also half and quarter sterling pence. No other money, whether of gold or silver or base metal, can be spent or be current in England.² Pegolotti is not quite exact, for it is known from English mint documents on the Edwardian recoinages that the fineness was intended to be 11 oz. 1½ dwt and that 243 pence were struck to the Tower pound, the extra three pence accruing to the merchant who brought the bullion. But Pegolotti is right when he says that, in London, silver bullion is bought and sold by Tower weight (though mint documents show that the transactions were in pounds rather than marks); he goes on to say that no-one, neither citizen nor foreigner, can exchange bullion except the master of the mint – a statement that again is borne out by a surviving mint document.³

Note: This article has been many years in gestation and is substantially the paper read to the British Numismatic Society in March 2004. Since then the writer has become aware of two recently published works (Simpson and Connor 2004; Connor and Simpson 2004) that cover some of the same ground (for example, in using Pegolotti) more extensively

¹ Evans 1936.

² Evans 1936, 255.

³ Johnson 1956, 57–8.

Pegolotti states that the mark of the Tower of London contains eight ounces, of twenty sterlings to the ounce, thus 160 sterlings to the Tower mark. Here the term 'sterling' is being used as a unit of weight, which will be described here as a sterlingweight (swt), to distinguish it from any other pennyweight. English mint documents state that it contains twenty-four grains,⁴ that is to say, of the Tower scale, as distinct from the $22\frac{1}{2}$ troy grains by which it has come to be known, or the thirty-two grains of wheat taken from the middle of the ear, frequently found in other sources. On the metric scale it is 1.458 grams.

Some international relationships with north-western Europe

Relationships given by Pegolotti between the weights used for precious metals in the major cities of north-western Europe, bearing in mind that twenty-first-century precision cannot be expected in the fourteenth century, point to the sterlingweight having had a unifying role. Writing about London, he equates the Tower mark with the heavy mark of Cologne.⁵ For Flanders, he reports that Bruges has a mark of gold, of eight gold ounces, which weighs eight ounces and eight sterlings by the weight of the Tower of London – in other words 168 sterlingweights, or twenty-one sterlingweights to the gold ounce.⁶ He gives the same relationship for Antwerp, so it can be concluded that he aligns Antwerp's mark with those of the Tower and Cologne.⁷ He equates the Bruges mark of gold with the Paris mark (which also contains eight ounces but is not specific to gold),⁸ so he evidently regards the Paris ounce, like the Bruges gold ounce, as equivalent to twenty-one sterlingweights. A much later source that is well-nigh impeccable seems to confirm that he is right to do so. In 1742 the Royal Society of London and the Royal Academy of Sciences in Paris exchanged standard weights and measures, and the Paris sixteen-ounce weight was found to weigh 7,560 troy grains.⁹ This works out at $472\frac{1}{2}$ troy grains to the ounce, or exactly twenty-one sterlingweights of $22\frac{1}{2}$ grains. The correspondence is remarkable and unlikely to be fortuitous, notwithstanding the lapse of time.

As to silver, Pegolotti says that it is weighed in Bruges and the rest of Flanders by a lighter mark of six Bruges ounces, which differ from gold ounces, and that twenty-one Bruges silver marks weigh the same as sixteen gold marks.¹⁰ Now since a gold mark amounts to 168 sterlingweights, it follows that a Bruges silver mark should weigh $168 \times 16 \div 21 = 128$ swt, so that a Bruges ounce of one-sixth of a mark would amount to $21\frac{1}{3}$ sterlingweights, about 1.5% heavier than the gold ounce and equivalent to 480 troy grains. This means that, if Pegolotti is right, the Bruges ounce is effectively the same as the English troy ounce. The Belgian scholar Joseph Ghyssens wondered whether this was a coincidence, or did one ounce give rise to the other? He felt that he could not reach a conclusion because of lack of agreement among scholars on the antiquity of troy weight in England.¹¹

The vexed question of troy weight

The first mention of troy in an English statute is in 1414,¹² although in minting indentures the troy pound does not replace the Tower pound until 1526, with one exception to do with the ecclesiastical mint of Durham in 1495.¹³ The question is whether troy weight was actually involved in the coinage at a much earlier date than this. In his definitive and detailed survey of weights and measures, published for the Science Museum in 1987, R.D. Connor argued for its

⁴ Johnson 1956, 67.

⁵ Evans 1936, 255.

⁶ Evans 1936, 245.

⁷ Evans 1936, 244.

⁸ Evans 1936, 237.

⁹ Connor 1987, 244.

¹⁰ Evans 1936, 237.

¹¹ Ghyssens 1986, 67, and Brand 1994, 73.

¹² Connor 1987, 125.

¹³ Challis 1992, 718; also 220–2 for a discussion of confusion between Tower and troy in acts relating to Ireland between 1460 and 1483.

antiquity and claimed that it was the weight used at the Exchequer in assaying and blanching payments brought in by sheriffs.¹⁴

A full description of the operation of the Exchequer in the last years of Henry II's *Cross-and-Crosslets* coinage has survived in the form of a dialogue between a master and his disciple – the *Dialogus de scaccario* – written by Richard fitz Nigel, then the treasurer of the Exchequer.¹⁵ He explains how the assay was conducted. He says that forty-four shillings of the sheriff's money, which had been put in a purse, were mixed together, after which as many pence as were needed to balance a pound weight were removed from the mixture. These were then counted to ensure that they did not amount to more than six pence in excess of twenty shillings, for if they did they would be rejected as not being of acceptable weight. Provided they passed this test, a pound of exactly twenty shillings was then put in a cup and the remaining twenty-four shillings were put back in the purse.¹⁶ The coins in the cup were then melted till the silver was thoroughly refined, and the resulting ingot was weighed against the same pound weight as before. Pence were added from the purse to balance the weight, and the pound was said to have lost that number of pence in the fire. The melter would also receive two pence. If for some reason the test was deemed a failure, it would be repeated using the coins still in the purse (which would obviously amount to less than twenty-four shillings, depending on how many were weighed in the balance at the end of the first test), though this time the melter would receive nothing. The result would be that if the test-ingot was, say, twelve pence short, the sheriff would only be credited with £95 'blanched' for each £100 paid in by tale.¹⁷ It will be apparent from this description that the shortage could be due partly to the refining and partly to the coins themselves not being of full weight.

Since the *Dialogus* specifically states that if it took more than 246 pence to balance the Exchequer's pound the coins would be rejected as not being of acceptable weight, it follows that the number of *Cross-and-Crosslets* pence struck from such a pound should not have exceeded 246. That condition could not have been met if the Exchequer pound was the troy pound. However, if it was the same as the subsequent Tower pound, the average weight at which pence of that issue were struck ought to have been no less than $5,400 \div 246 = 21.95$ troy grains (1.422 g). Now we are told that 5,127 pence in the Tealby, Lincolnshire (1807) hoard weighed 19 lb 6 oz 5 dwt troy, thus averaging 21.93 grains (1.421 g), and that 142 pence in the Amptill, Bedfordshire (1836) find weighed 6 oz 10 dwt $8\frac{1}{2}$ gr, so averaging 22.03 gr (1.427 g).¹⁸ Given the close correspondence and accepting that hoarded coins, even when not corroded, may have leached a small amount of alloy during their sojourn in the ground, the account in the *Dialogus* is consistent with the Exchequer pound used in the assay being the same as the Tower pound and the minting standard of *Cross-and-Crosslets* being perhaps two or three pence fewer than 246 to that pound.¹⁹

In contending that the pound of the Exchequer was always troy, Connor recognised that at least 256 pence of full weight would be needed to balance it. These, he said, or up to six more if necessary, would be taken from the forty-four shillings emptied from the purse and the rest (except the two pence for the melter) would be put back in it.²⁰ Not only is the *Dialogus* quite specific that the pound must be balanced by no more than 246 pence, but also that exactly twenty shillings were taken for the assay and the remaining twenty-four shillings put back. Also, our former President, the late Dr John Brand, demonstrated that the weights recorded in 1231 for purses of 240 pence to be used in the assay were measured against the standard weight of that number of pence.²¹ If this was not the same as the Tower pound it must have been very close to it. It cannot have been the troy pound.

Nevertheless, and also in the mid-1980s, Dr Pamela Nightingale argued that Henry II, coming from Anjou, would have wanted his English revenues to serve his continental ambitions and would therefore have purchased bullion for his new *Cross-and-Crosslets* coinage in 1158 by the

¹⁴ Connor 1987, 121–3.

¹⁵ Hughes, Crump and Johnson 1902. For English translation, *EHD* II, 490–569.

¹⁶ *EHD* II, 496 and 513.

¹⁷ *EHD* II, 514.

¹⁸ Allen 2005, 228, n.8.

¹⁹ See below, p. 238.

²⁰ Connor 1987, 112.

²¹ Brand 1994, 65–6.

type of troy weight used in those dominions, namely 252 sterlingweights to a twelve-ounce pound. He would give for each such pound of sterling fineness brought to his mints a Tower pound of sterling pennies, thereby earning himself a profit of one shilling,²² out of which he would, of course, have had to pay minting costs. However, it is at least debatable whether the exchanging of bullion for new coins came under royal control before 1180. Brand argued that 'the office of exchanger was long established in Normandy, but seems not to have been known in England before 1180'.²³

In his definitive catalogue for the British Museum of the *Cross-and-Crosslets* issue, Derek Allen contended that in 1158 Henry I's charter *de moneta falsa et cambiatoribus* was still operative, under which the moneyers were 'in exclusive possession of the right of exchanging, a service different and distinct from that of minting, for which a separate charge was made',²⁴ but that with the *Short Cross* recoinage of 1180 'the function of exchanging ... became a royal one'.²⁵ On this view, Henry would have had no opportunity to introduce troy weight into the purchase of bullion before 1180. On the other hand, Nightingale has argued compellingly for the reduction in the number of mints and moneyers in 1158 being 'part of an over-all plan to extend royal authority over the mints'.²⁶ Yet if this had involved the king in the exchange of bullion it is improbable that he would have introduced a practice of purchasing by continental troy weight. Had he done so, it would surely not have been abandoned by the time of the Edwardian recoinage a century later, when surviving mint documents are quite clear that bullion was bought and exchanged for coin by Tower weight, with a deduction for minting charges, seignorage and any actual or perceived difference in fineness.²⁷

The cases made respectively by Nightingale and by Connor for the use of one or other form of troy weight in Henry II's reign for the purchase of bullion or the assay of payments at the Exchequer are not tenable given the documentary evidence to the contrary, and Connor has recently recognised this in an important joint paper with A.D.C. Simpson.²⁸ As already mentioned, the earliest recorded mention of troy weight in an English Statute is in 1414, while in Scotland troy weight was introduced on the French model and is first specified in an Act of Parliament of 1393 for a new coinage of gold and silver by Robert III's master moneyer, Bonage of Florence.²⁹ Nightingale is on firmer ground when she states that Henry II 'profited from his English subjects by means of surcharges and deductions at the exchequer for "blanched farms"'.³⁰ However, so did his Norman predecessors.

Medieval terminology and the farthings of 1279

It is as well at this point to recognise that medieval terminology can sometimes confuse the modern mind. One example is the use of shillings and pence as counting units so as to obviate the need for lengthy Roman numerals. When Pegolotti discusses English coins he says that in a Tower pound there are twenty shillings of sterling pence by number, and thirteen shillings and four pence by number in a mark. However, in the case of half sterlings a Tower pound contains forty shillings by number, with twenty-six shillings and eight pence in a mark.³¹ What he means by forty shillings is $40 \times 12 = 480$ coins, and by twenty-six shillings and eight pence he means 320.

The same convention is found in mint documents dealing with the first farthings of the Edwardian recoinage, and has been a source of difficulty for numismatists. A document from 1279 on the form of the new money tells us that initially farthings were to be made only at London, and although four of them would contain almost as much silver as one sterling, the difference reflecting

²² Nightingale 1985, 205.

²³ Brand 1994, 25.

²⁴ Allen 1951, lxxxii.

²⁵ Allen 1951, xciii.

²⁶ Nightingale 1982, 49.

²⁷ Johnson 1956, 68–9 and 95.

²⁸ Simpson and Connor 2004, 328, citing an unpublished paper by Norman Biggs.

²⁹ Cochran-Patrick 1876, I, 12–3.

³⁰ Nightingale 1985, 205.

³¹ Evans 1936, 255.

the higher cost of minting, they would contain more alloy than a sterling because otherwise they would be too weak and small. Therefore farthings would weigh 65s. 8d. to the pound,³² meaning 788 coins and producing an average weight of 6.85 grains (0.44 g). William de Turnemire's indenture of December 1279, which extended the production of farthings to other mints, makes clear that it would actually take eighty-three shillings by number, namely 996, to contain a pound of sterling silver³³ (compared with 243 sterlings), so the silver in four farthings would have been 2.4% less than in one sterling although their weight would have been 23% greater. It would have been grossly unfair to exchange silver bullion for farthings by weight, so the exchange would have been by number after deductions for seignorage and a specially high minting charge.

When seeking to interpret a metrological relationship involving monetary units it is therefore necessary to understand what kind of units they are. Does the relationship define a market weight? Does it instead refer to a mint weight and the number of coins that are to be struck from it, or perhaps a silver weight and the number of minted pence at which it is valued? Could it simply be the expected weight of the number of coins in an accounting unit (such as a tale sum of 20s. or 13s. 4d.), or even the accounting unit itself with no reference to its weight? There is plenty of scope for confusion here.

Minting charges

In the exchange of bullion for current coin, charges are made for minting, seignorage and any difference in fineness between the bullion and coinage metal by withholding a proportion either of the weight of the bullion taken in, or of the weight or number of coins minted from it. Further elements in the transaction are the incremental number of coins that will be struck from a unit weight of coinage metal (for example, any excess over 240 pence, in the case of a pound of metal), the purpose of that increment, and who will receive it.

In Edwardian times, with the coinage under royal control, bullion was exchanged weight for weight for current pence after first allowing for seignorage, mintage and any departure from sterling fineness.³⁴ For a pound of foreign silver of that fineness the result was a deduction that varied from seventeen pennyweights in 1279–80 and 14½ pennyweights from 1281 to 1289, to 11½ pennyweights from 1290 through and beyond Pegolotti's time. Larger deductions were made when exchanging obsolete English coins.³⁵

Edwardian pence were usually struck at 243 to the Tower pound, with the increment of three pence going to the merchant bringing the bullion. Taking the conventional troy weight of 5,400 grains (349.9 g) for the Tower pound, the pence of that coinage should have averaged 22.22 gr (1.440 g), about 1.5% more than the 21.9 grains brought out for the Mayfield hoard by Marion Archibald's analysis – a discrepancy that she thinks may indicate an immediate culling of coins of profitably heavy weight.³⁶ In 1259 we are told that 242 *Long Cross* pennies were minted from a Tower pound, so yielding an expected weight of 22.31 gr (1.446 g), about 1% above the 22.1 grain average weight of 1,000 die-duplicates of the Bury mint in the 1969 Colchester hoard but corresponding closely with the average weight of a number of random samples of London coins.³⁷ No earlier specification of minting standards is available, though Dr Martin Allen has suggested that in the preceding *Short Cross* coinage as many as 246 pence may have been minted from a pound.³⁸ We have seen from the *Dialogus* that pence of the *Cross-and-Crosslets* coinage of Henry II would not be regarded as of acceptable weight if it took more than 246 to weigh a pound, and

³² Johnson 1956, 56: *E est a saver ke il serrunt de peys de seysante cink souz e wit deners a la livre*. G.C. Brooke correctly recorded the resulting weight as 6.85 grains (Brooke 1932, 116).

³³ Note that Challis 1992, 700 follows Johnson 1956, 61, in interpreting *quolibet libra continebit quatuor uiginti Londrenses et tres solidos ultra numero* as that a pound weight should contain four score lundreis (when four score shillings of them was undoubtedly meant) and three shillings over by tale.

³⁴ Johnson 1956, 94–5.

³⁵ Mayhew 1992, 134, Table 3.

³⁶ Archibald 1971, 155, but correcting 29.1 to 21.9. (Note that in the table of weights of English pence on p. 157, the number of coins in Fox class Xd, die numbers 2/2, should be 97 and the total number correspondingly increased from 348 to 353).

³⁷ Archibald 1971, 155–6.

³⁸ Allen 2005.

that this is backed up by hoard evidence.³⁹ Looking back to Henry I Type xv, the weight distribution of the coins in *BMC* has a median of 21.6 grains, or 250 to the pound, which may have been adversely affected by a tail of coins of light weight.⁴⁰ Nevertheless the standard must be lighter than for *Cross-and-Crosslets*.

At the time of the Domesday survey it was lighter still. The *Paxs* coinage, which is generally thought to be William I's last issue or William II's first, although Professor Metcalf would place it slightly earlier,⁴¹ is best known to us from the Beauworth (Hampshire) hoard of 1833. The coins from that hoard are in an excellent state of preservation and the weight distribution is tight, those in *BMC* having very close median and mean weights of 21.2 and 21.15 grains respectively.⁴² These are equivalent to just under and just over 255 pence to the Tower pound.

TABLE 1. Weights (in troy grains) of 641 *Paxs* pence in *BMC*

Grains	No. of coins	Grains	No. of coins	Grains	No. of coins
23.3	1	21.5	38 <i>q</i>	20.1	4
23.2	1	21.4	54	20.0	4
22.7	2	21.3	53	19.9	2
22.6	3	21.2	66 <i>m</i>	19.8	3
22.5	1	21.1	59	19.7	2
22.4	1	21.0	58	19.6	1
22.3	5	20.9	32 <i>q</i>	19.5	1
22.2	6	20.8	32	19.4	1
22.1	7	20.7	29	19.2	1
22.0	8	20.6	20	18.7	1
21.9	17	20.5	15 <i>d</i>	18.6	3
21.8	17 <i>d</i>	20.4	13	17.9	1
21.7	26	20.3	7	17.8	1
21.6	37	20.2	7	15.6	1
	132		483		26

m = median *q* = quartile *d* = highest/lowest decile

Source: The individual grain weights recorded in *BMC*. The total for the 641 coins is 13,555 grains, giving a mean weight of 21.15 grains (1.371 g).

At this time, when moneyers were responsible for exchanging bullion, charges may not have been made by deduction from the weight of bullion but by minting significantly more pence to the pound of coinage bullion and withholding all or part of the increment, namely the excess over 240 to the pound weight. Such a method appears to have been used in France by Charlemagne's predecessor Pippin, who ordained that as much as twenty-two shillings could be struck from a pound weight, the moneyer retaining one and the remaining twenty-one being given to his lord.⁴³ A similar procedure might account for the lighter weight at which Norman pence were evidently minted, which raises the question of whether any evidence to this effect might be gleaned from Domesday Book.

The meaning of Domesday renders 'de xx in ora'

It is clear from the Pipe Rolls, the earliest of which dates from 1130, that in the mid-twelfth century it was the practice for the king's lands in a shire to be 'farmed' by the sheriff in return for a set annual

³⁹ See above, p. 229.

⁴⁰ Brooke 1916, I, cliii. The median lies in the range 21–21.9 gr and its precise position was determined by extracting from volume II the exact weights of the coins in that range, which are recorded to 0.1 gr.

⁴¹ Metcalf 1998, 188.

⁴² Based on Brooke 1916, II. It is legitimate to calculate the mean to two places of decimals given the size of the sample, although the median (the weight of the middle coin) is best left as recorded, namely to one decimal place. Fewer than 7% of the coins differ from the median by more than 1.0 gr.

⁴³ Prou 1896, xxix, n. 3.

payment which had to be satisfied in coins blanched by an assay at the Exchequer in London, such as has already been described.⁴⁴ Disbursements made by the sheriff on behalf of the king were deductible from the sum due but, for consistency, if made at face value they also had to be blanched at the Exchequer, in this case by a reduction of twelve pence in the pound, or 5%.⁴⁵ Half of this may be to compensate for the coins in circulation averaging close to 246 to the pound, for Richard fitz Nigel expressed the opinion that six pence was as much as ought to be lost in the fire,⁴⁶ and Brand has shown that in 1230–1 the recorded loss from combustion alone is usually seven pence.⁴⁷

In the records of the Domesday Inquest of 1086 we are not told about sheriffs' dealings with the Exchequer. Instead, the estates of every landholder within a given county are itemised, the tenant of each is named, the land's potential described, the past ownership or tenancies from the time of King Edward outlined, and the annual dues collectable now and in the past are set out. Although small items are frequently stated in marks and in some parts of the country in oras, significant payments are generally expressed in pounds, shillings and pence. On royal estates they are often described as payable in some special way, such as in blanched pence (*albas, blancas* or *candidas*) or by weight (*ad pondus* or *ad pensum*), or even burnt and weighed (*arsas et pensatas*). It is hard to imagine that manorial payments to the sheriff could have been subjected to the kind of assay described nearly a century later in the *Dialogus*, and it is likely that he collected them with well-understood surcharges, though it is not obvious how much these were.

For a numismatist the most intriguing requirements are some forty-five specifications for payments to be made in pence which are twenty to the ora (*de denariis qui sunt xxⁱⁱ in ora*, to give it its fullest Latin description). This form of payment is scattered through Domesday Book, not in the Danelaw counties, as one might expect from the ora's Scandinavian origin, but in the heartlands of Wessex and southern Mercia, and in only three instances does it relate to manors not held by the king himself.⁴⁸ As an accounting unit in England the ora seems always to have comprised sixteen pence, as it clearly does in eastern and northern counties in Domesday when not referring to royal estates. So what does payment from royal estates 'in pence which are twenty to the ora' actually mean?

It is undoubtedly a payment by number of coins and not by weight, as the entry for the City of Worcester makes clear:

'From the County [the Sheriff] pays 17 pounds *ad pensu*~. He pays a further 10 pounds *denarioru~ de xx in ora* or a Norwegian hawk, and a further 100s to the Queen *ad numeru*~ and 20s. *de xx in ora* for a packhorse. These 17 pounds *ad pensu*~ and 16 pounds *ad numeru*~ are from the pleas of the County and from the Hundreds ...'.⁴⁹

Payment at twenty to the ora seems to be a specific form of blanching, and may even be a description of the normal mechanism of blanching at this time, for, although we sometimes find expressions such as *blancas de xxⁱⁱ in ora*,⁵⁰ no estate makes payments at twenty to the ora as well as in blanched coin.⁵¹ Although sums payable at face value and others payable at twenty to the ora are added together in the Worcester entry to distinguish them from payments by weight, there must be a difference between them, for otherwise we surely would not be told that at Dover:

... the reeve pays 54 pounds, that is 24 pounds to the king *de denar~ qui sunt xxⁱⁱ in ora* and 30 pounds to the Earl *ad numeru*~.⁵²

The apparent absurdity of the king receiving less than the earl is one reason why Dr Sally Harvey argued forty years ago that *de xx in ora* meant 'payable in pence with a surcharge of 25%' – in other words, for every sixteen pence due, twenty would have to be paid.⁵³ She supported her

⁴⁴ See above, p. 229.

⁴⁵ EHD II, 567.

⁴⁶ EHD II, 514.

⁴⁷ Brand 1994, 65–6.

⁴⁸ Kent 5.1 (f.6a) and 6.1 (f.11d); Surrey 16.1 (f.34b). References are to the Phillimore edition.

⁴⁹ Worcestershire C2 (f.172a). Here, and in subsequent quotations from DB, I have adapted the English translation to include the Latin payment terminology in the interests of clarity.

⁵⁰ Hampshire 1W.4 (f.39c).

⁵¹ Harvey 1967, 224.

⁵² Kent D7 (f.1a).

⁵³ Harvey 1967, 223.

hypothesis by pointing to the numerous examples in Domesday of payments to the king that are multiples of twenty pence. Her interpretation was widely accepted and was adopted in my Presidential Address to this Society in 1969.⁵⁴ It makes sense as a response to a 20% reduction in the pennyweight, which the introduction of the sterlingweight may have involved,⁵⁵ but its weakness is that we would not really expect to find an accounting ora used in the heartland of England to qualify payments expressed in pounds and shillings. On the other hand it was laid down in the law code known as IV Æthelred that every pound weight in his markets was to contain fifteen oras,⁵⁶ and we can infer that the ora was still in use nationally in 1086 as a unit of weight for silver, for *ounces* of silver are never referred to as such in Domesday, although ounces are used for gold. Then about twenty years ago Dr Nightingale, taking ora and ounce as synonymous, dismissed Harvey's hypothesis of a 25% surcharge in favour of 'payment at face value in new pence minted at 20 to the ounce'.⁵⁷ However, it is difficult to see the point of specifying new pence just for a few payments due to the king and it makes no sense for Dover. Significantly Brand, in an important but unfortunately unpublished paper, pointed out that in 1086 pence were not minted at twenty to the ounce – if the same as the Tower ounce – but at about twenty-one. He thought that payment in pence at twenty to the ora implied payment with a surcharge to make up the difference between the weight of the minted penny and the pennyweight – by which he meant the sterlingweight.⁵⁸

Now we have already seen that the distribution of the weights of pence of the *Paxs* issue from the Beauworth hoard, buried within a year or two of the Survey, is very tight, with median and mean weights of 21.2 and 21.15 troy grains respectively.⁵⁹ William the Conqueror had stabilised the weight of the penny some years before 1086, so that, even if the *Paxs* type was his successor's first rather than his own last issue, it is likely that the average weight of coins current at the time of the Domesday survey would have been much the same. Ignoring the possibility of weight loss in the ground, we need to add about 6% to 21.2 grains to bring it up to the sterling pennyweight of 22.5 grains, if that was a relevant measure.

Evidence for a surcharge of similar magnitude can actually be seen in the Domesday renders for the king's manors in one county, Somerset. Brand remarked that no one seemed to have noticed that those renders which were payable *de xx in ora* were multiples of the curious sum of £1 1s. 2½d., whereas in other counties they were usually in whole pounds (see Table 2).⁶⁰ From the way these sums are expressed it is clear that they have been stated after applying a surcharge of 1s. 2½d. in the pound, or 14½ pence, to what were otherwise round sums. Brand did not propose an explanation for a surcharge at this level, but it is noteworthy that 14½ pence represents an addition of 6.04% to a pound of 240 pence – in other words it would on average enable the payment to be made up to 240 sterling pennyweights. If it could be assumed that the same surcharge, made explicit for Somerset, was an implicit addition to the round sums specified in other counties when payments were due *de xx in ora*, it might also signify that 254½ pence were required to be struck from a Tower pound of coinage metal so that 14½ of them could be retained by the moneyers for minting costs, including their contribution towards the king's revenue from the borough. Much later, in the 1280s, the deduction from a pound of foreign sterling bullion to cover mintage and seignorage happens to have been 14½ sterling pennyweights, a coincidence which may or may not have any relevance.⁶¹ The odd halfpenny comes from a minting charge of 5½d. which seems to have been fairly stable.

⁵⁴ Lyon 1969, 210.

⁵⁵ See below, p. 237.

⁵⁶ Robertson 1925, 78-9, as discussed in Lyon 1969, 214.

⁵⁷ Nightingale 1983.

⁵⁸ J.D. Brand, 'The evidence of Domesday Book and after for money weight and fineness' (unpublished). The paper does not refer to Nightingale 1983 and must therefore have been written earlier; Brand died in 1990 without updating it. Curiously, Domesday Book makes a single reference to a payment *de xx in ora* in the time of King Edward, and perhaps we are entitled to think that it may be a scribal error. It states that the city of Leicester paid the king each year £30 *ad numerum de xx^o in ora*. If it is not an error it can only relate to the last years of Edward's reign, when pence were always minted lighter than 22½ troy grains.

⁵⁹ See above, p. 232.

⁶⁰ Brand, unpublished, see n. 58.

⁶¹ See above, p. 231.

TABLE 2. Domesday Book renders from royal manors in Somerset, surcharged for payment *de xx in ora*.

Most payments *de xx in ora*, as well as that from Milborne Port which is (mistakenly?) said to be *de albo argento*, are multiples of £1 1s. 2½d. (i.e. £1.060417). They are derived from a liability in King Edward's time (*TRE*) for the provision of 'one night's farm' (i.e. food for the king and his court) from one manor or a group of manors. This had now been commuted for a money payment of £100, surcharged by 14½d. in the £, making £106 0s. 10d. The manors concerned were not hidated for tax.

(i) Where one night's farm was paid *TRE* by two manors together

£53 0s. 5d. specified = 50 × £1 1s. 2½d.

FROME

£53 0s. 5d. specified = 50 × £1 1s. 2½d.

BRUTON

£79 10s. 7d. specified = 75 × £1 1s. 2½d. - ½d.

SOMERTON (with Langport)

£21 0s. 2½d. specified

CHEDDAR (with Axbridge)

(This could be £20 surcharged at 1s., making £21, with 2½d. added in error instead of 20 × 2½d. But we would have expected £26 10s. 2½d. = 25 × £1 1s. 2½d.)

(ii) Where one night's farm was paid *TRE* by three manors together

£42 8s. 4d. specified = 40 × £1 1s. 2½d.

NORTH PETHERTON

£42 100d. specified = 40 × £1 1s. 2½d.

SOUTH PETHERTON

£21 50d. specified = 20 × £1 1s. 2½d.

CURRY (Rivel)

(iii) Where one night's farm was paid *TRE* by three manors in one DB entry

£100 116s. 16½d. specified (i.e. £105 17s. 4½d.). (This is 3s. 5½d. short of the expected 100 × £1 1s. 2½d. It seems to have been calculated as 100 × £1 plus 100 × 1s. plus 100 × 2d. (i.e. 16s. 8d.) plus 8½d.)

WILLJTON, CANNINGTON and
CARHAMPTON(iv) Where three-quarters of one night's farm was paid *TRE*

£80 less 9s. 5d. specified = 75 × £1 1s. 2½d. - ½d.
(i.e. £79 10s. 7d.)

MILBORNE PORT (with Ilchester)

(v) Where nothing is stated *TRE*

£21 0s. 2½d. specified

BEDMINSTER

(See the comments on Cheddar. Round 1909, 111-12, doubted that Bedminster was originally combined with Milborne Port for payment of one night's farm because they are at opposite ends of the county.)

The Somerset manors that paid dues *de xx in ora* were those that had never been hidated for tax, but in King Edward's time had contributed all or part of one night's farm. Before the Conquest the commutation into money of this requirement for a day's provisions for the king and his court seems to have been £80, but had been increased to £100 by William and then, apparently, surcharged for payment *de xx in ora*.⁶² In contrast, another group of royal manors which had been assessed for tax purposes were required to pay their dues in white or pure silver, *de albo argento* (Table 3). In their case the sums specified are multiples of £1 3s., which implies a surcharge of 3s., or 15%. It seems possible that this is what was regarded as necessary to ensure that the king received a pennyweight of pure silver for every penny nominally due. It would imply that £1 3s. of money would yield £1 1s. 2½d. of pure silver. If so, William would be expecting payment as though his coins, when melted and refined, would yield 92.2% of their weight in what was regarded as pure silver. Now that is effectively the purity implied two centuries later by a mint document which says that the new Edwardian pence should contain 18½ dwt of alloy in a pound of coinage metal – that is to say 92.3% fine.⁶³ However, it is well known that pre-Edwardian documents such as the *Dialogus de Scaccario* say that the alloy added to refined silver should be no more than six pence although analysis shows it was much higher, and it has been suggested that the meaning must be six pence of alloy above what at that time was a practical limit of refinement.⁶⁴ The Domesday surcharge *de albo argento* seems to imply that such a limit was understood and allowed for.

⁶² Poole 1912, 29.⁶³ Johnson 1956, 68, 73.⁶⁴ Mayhew and Walker 1977, 133-4.

TABLE 3. Domesday Book renders from royal manors in Somerset, surcharged for payment *de albo argento*.

Most payments *de albo argento*, aside from Milborne (see Table 2), are multiples of £1 3s., and the manors concerned were hidated for tax. Thus:

£46 0s. 0d. specified = 40 × £1 3s.	CREWKERNE
£28 15s. 0d. specified = 25 × £1 3s.	CONGRESBURY
£27 12s. 1d. specified = 24 × £1 3s. + 1d.	BROMPTON
£23 0s. 0d. specified = 20 × £1 3s.	CLEEVE
£23 0s. 0d. specified = 20 × £1 3s.	NORTH CURRY
£23 0s. 0d. specified = 20 × £1 3s.	CAMEL
£23 0s. 0d. specified = 20 × £1 3s.	HENSTRIDGE
£11 10s. 0d. specified = 10 × £1 3s.	DULVERTON
£9 4s. 0d. specified = 8 × £1 3s.	CREECH
£4 12s. 0d. specified = 4 × £1 3s.	LANGFORD (payment mode not stated)
£ .. 12s. 0d. specified (for £4 12s. 0d.?)	NETTLECOMBE
£2 6s. 0d. specified = 2 × £1 3s.	CAPTON
£19 0s. 12d. specified., (Does not fit, but £19 11s. 0d. = 17 × £1 3s.)	COKER
£12 14s. 0d. specified. (Does not fit, but £12 13s. 0d. = 11 × £1 3s.)	HARDINGTON
£10 10s. 0d. specified. (Does not fit, but £11 10s. 0d. = 10 × £1 3s.)	WINSFORD

To recapitulate, Domesday Book shows the ora to have been in common use as a unit of weight for silver, though not for gold, as late as 1086. We recall the ora referred to in the law code known as IV Æthelred, which laid down that market weights were to be in accordance with the weight at which the king's money was received, and were to be stamped to show that fifteen oras made a pound. Nothing new is said in the laws of Cnut about weights and measures⁶⁵ and there is nothing later to indicate that a change was made. It therefore seems probable that Æthelred's ora was inherited by both conquerors, Cnut and William, and that its weight, previously divided into sixteen heavy pennyweights, was redivided after the Conquest into twenty sterlingweights. On this hypothesis the pennyweight of Æthelred's time would have equalled $1\frac{1}{4}$ sterlingweights, equivalent to thirty Tower grains, forty wheat grains, or $28\frac{1}{8}$ troy grains. If minting charges were no less than we appear to find in Somerset in 1086, and if, as then, they were taken by minting more than 240 pence from a pound of metal, the maximum minted weight of a late Anglo-Saxon penny would have been about $26\frac{1}{2}$ troy grains, or 1.72 g. This corresponds very closely with the standard reached on a number of occasions in the eighty years after Edgar's reform of the coinage c.973 – the latest just fourteen or fifteen years before the Norman Conquest – and seems to validate the hypothesis.⁶⁶ At some stage before 1086 the heavy pennyweight must have been replaced by the sterling pennyweight, but that event was recent enough for it to be necessary sometimes to spell out that a blanchied payment involved a surcharge to make up the difference between the assumed weight of a minted penny and a sterling pennyweight – not, fortunately for the payer, the old heavy pennyweight.

Domesday Book, therefore, does appear to provide evidence that payment specified in pence at twenty to the ora did not normally involve a surcharge anything like as high as 25%. And yet this may not always be the whole story, for even with a $14\frac{1}{2}$ pence surcharge the king's twenty-four pounds at Dover would have been less than the earl's thirty pounds. We cannot imagine William

⁶⁵ II Cnut 9 simply re-enacts VI Æthelred 32.2, requiring weights and measures to be corrected with all diligence and an end put to all unjust practices: see Robertson 1925, 101, 179.

⁶⁶ For example there are strong peaks at Winchester for Æthelred in the ranges 1.65–1.69 g (*Crux*) and 1.70–1.74 g (*Long Cross* and the initial phase of *Last Small Cross*). The next and last occasion when a weight of this magnitude was achieved was for Edward the Confessor in the heavy *Expanding Cross* issue of c.1052, with a peak in the range 1.65–1.69 g for all mints combined. This followed a period of more than thirty years when pence were never minted to a standard greater than 1.15–1.19 g. See Petersson 1990, especially pp. 344 and 347.

being content with that, and nor apparently was he, for Dr Harvey pointed out that the corresponding account in a text based upon an earlier stage of the Domesday inquiries (the *Excerpta* of St Augustine's of Canterbury) describes the same payment to the king as twenty-four pounds *de xx denariis in ora cum incensione et pensa*.⁶⁷ If payments expressed to be payable by weight (*ad pensum*, *ad pondus* or *ad peis*) or burnt and weighed (*ad arsuram et pensum*, or *pensatas et arsuras*) were related to a traditional pound weight of fifteen oras, that pound would now amount to 300 sterlingweights instead of 240 heavy pennyweights. The king's take of twenty-four pounds at Dover would then be translated into as many sterlingweights as the number of pence contained in the earl's thirty pounds by tale and, if surcharged at the Somerset rate, would have a value 6.04% greater than the latter's share, and 32.5% greater than £24 in face value. A similar method of payment may be what is meant when Norwich pays seventy pounds by the king's weight (*pensum regis*).⁶⁸

The *Anglo-Saxon Chronicle* accuses William of taking from his people 'by weight and with great injustice',⁶⁹ which surely implies something more than blanching *de xxⁱ in ora* or *de albo argento*. Evidence that payment in white silver does not mean burnt and weighed is provided by Brill in Buckinghamshire, which paid thirty-eight pounds *de albo argento* and, for the forest, twelve pounds *arsas et pensatas*.⁷⁰ Another illustration of the cost of making a payment burnt and weighed is provided by Bosham, the king's only manor in Sussex, which paid fifty pounds *ad arsuram et pensum* that was said to be worth sixty-five pounds.⁷¹ If this means that an addition of 30% to the face value could be the surcharge in lieu of burning and weighing, in other words six shillings on a pound of 240 pennies, it may be that the 32.5% just suggested for Dover is a little too high.

We have seen that in Domesday Book the mark of silver is used as a unit of account which is quite evidently 13s. 4d., or 160 contemporary pence, just as it is in the surviving Pipe Roll of Henry I, and that by the time of Henry II the suffix 'of silver' has been dropped. But if we think of a mark of silver as originally a weight of eight oras, and the ora as sixteen heavy pennyweights, the silver mark would have contained 128 heavy pennyweights and the silver and mercantile pound of fifteen oras would have contained 240. It was probably the introduction of the sterling pennyweight that caused the tariff of the mark of silver to be raised to 160 pence, from which one would expect 300 minted pence to be equated with a pound of silver of fifteen oras, although the pound of silver is not specifically mentioned as a counting unit in Domesday Book. A pound of account in Domesday Book means 240 pence, as it always had done, and a payment *de albo argento* appears to be surcharged so as to yield 240 sterling pennyweights of pure silver, not fifteen oras of silver weight. But a payment *ad pensum* or *arsas et pensatas* would, it seems, be judged against the silver pound rather than a mint pound now reduced to twelve of the same oras or ounces.

Blanching 'ad scalam'

If *de denariis qui sunt xx in ora* is in fact spelling out the purpose of blanching a payment to the king – namely enabling him to receive the stated sum in pennyweights that are twenty to the ora or ounce, not in pence minted at a lighter weight – a surcharge of 14½d on a tale pound, as seems to have been imposed on certain Somerset manors at the time of the Domesday Inquest, makes sense in the context of the weight of *Paxs* pence. Indeed, without the benefit of this interpretation, Dr Harvey pointed out that an extra fourteen pence would be needed to make up a pound weight.⁷² The term *de xx in ora* is not recorded subsequently but instead we find some payments qualified as *ad scalam*. Brand noted that this expression is used in the *Dialogus* to denote an addition of six pence to each pound by number. He also drew attention to a number of documents pertaining to

⁶⁷ Harvey 1967, 224.

⁶⁸ Norfolk 1.61 (f.117b).

⁶⁹ *EHD* II, 164.

⁷⁰ Bucks 1.6 (f.143c).

⁷¹ Sussex 1.1 (f.16b).

⁷² Harvey 1967, 221.

the church of Holy Trinity, London in the twelfth century concerning an annual grant, blanced, from the farm of the city of Exeter. A writ of Henry I refers to it as granted *ad scalam* and in the Pipe Roll of 1130 it is satisfied by a payment of £25 12s 6d. by number – again an increase of 6d on a tale pound.⁷³

The additional six pence may have been introduced at a time when pence were (or were supposed to be) minted at 246 to the pound, or perhaps slightly fewer if part of the increase was intended to compensate for gradual deterioration of the currency. However, when the *Short Cross* coinage was introduced in 1180 the authorities in Exeter claimed that they should no longer be liable for the 12s. 6d. excess, but the case was ruled against them on the ground that they were liable for it regardless of the quality of the coin.⁷⁴ The decision could perhaps confirm that *Short Cross* coins were intended to be minted at 246 to the pound, as Dr Allen has recently suggested.⁷⁵ However, the increase would certainly not have been justified from 1247, the new *Long Cross* coins being nearly of full weight, but despite this it continued to be paid until the dissolution of the priory in 1532.⁷⁶

Pounds, marks and oras in late Anglo-Saxon England

It has been argued above that King William's pound of silver of fifteen oras would have been a weight he inherited from Anglo-Saxon England as prescribed in the law code known as IV Æthelred. Sixteen heavy pennyweights would have comprised an ora and 128 a mark. The *Anglo-Saxon Chronicle* gives us information which may demonstrate that in the period of Danish rule payments were made to the crews of the retained Danish ships in marks of 128 pennyweights. Professor James Campbell has drawn attention to the significance of the annals which record *inter alia* that in 1040, in the reign of Harthacnut, sixty-two (Danish) ships were to be paid for at eight marks to each rowlock, and that in the following year an army-tax of 21,099 pounds was paid, and later 11,048 pounds were paid for thirty-two ships.⁷⁷ As Campbell says, the precision of these payments carries credibility. Now if sixty-two ships were paid 21,099 pounds, the average is 340.3 pounds a ship, while for thirty-two ships which cost 11,048 pounds the average is 345.25. Professor Campbell makes the point that 'if, as is probable, the ships' companies each consisted of eighty oarsmen paid at eight marks [a year] and a steersman paid at twelve marks, then the annual cost of one ship was 652 marks.'⁷⁸ Those three sums per ship are broadly comparable when converted into oras at fifteen to the pound and eight to the mark, thus 5,100–5,200 oras.

The Swedish scholar Professor Brita Malmer has pointed out that in Scandinavia it was only the weight of silver that mattered,⁷⁹ so the annals are almost certainly referring to money paid by weight, not tale. There are two obvious possibilities that would satisfy the necessary relationship of fifteen to eight between pound and mark: either the ora contained sixteen pennyweights, the mark 128 and the pound 240, or the ora amounted to twenty pennyweights, the mark 160 and the pound 300. The second was certainly the situation after William introduced the sterling penny, but the first is more relevant to Anglo-Saxon England, involving, as it does, a heavy pennyweight. It is probable, therefore, that the annals are referring to pounds of 240 heavy pennyweights and marks of 128.

It has to be admitted, though, that the minted penny regularly fell well short of a heavy pennyweight of the order of $1\frac{1}{4}$ sterlingweights, and drastically so throughout the thirty-five years before 1051 or 1052. A Danish ship receiving 5,200 oras of silver weight in 1040 would, if paid in current pennies, have received about 140,000 pence at a rate of approximately twenty-seven to the ora.⁸⁰ Such light minting led Dr Nightingale to propose that Cnut must have introduced new

⁷³ Brand, unpublished, see n. 58.

⁷⁴ Harvey 1967, 227, citing J.H. Round.

⁷⁵ Allen 2005.

⁷⁶ Brand, unpublished, see n. 58.

⁷⁷ *Anglo-Saxon Chronicle*, MS E; see *EHD* I, 234–5.

⁷⁸ Campbell 2000, 225–7.

⁷⁹ Malmer 1974, 6.

⁸⁰ Petersson 1990, 347, Table 1, shows that the average weight of minted pence at this time was between 16.1 and 17.2 grains (1.05–1.12 g).

standard weights, with an ora becoming worth twenty-four pence,⁸¹ but against this proposition it can be argued that the system of physical weights, for which there is no documentary evidence of change, is being confused with the undoubtedly variable weight of the number of coins that constituted a particular accounting unit. If an ora of coinage silver was equal to or commensurate with the later Tower ounce, the number of pence struck from it in Cnut's time was seldom less than twenty-four except at the inception of the *Quatrefoil* issue, and sometimes reached thirty-two or even more (as, for example, in Somerset at the end of the same issue).⁸² Cnut was intensifying a practice that had been developed by his predecessor and had reached a previous peak during the highly disturbed years of the *Last Small Cross* issue, and it is fair to assume that it reflected a shortage of silver for internal currency, not least as a result of successive payments of tribute to the Viking crews. Progressive reductions in the weight of the minted penny in the later Middle Ages had no effect on the weight of the Tower pound, nor on the number of pence in an accounting pound, so why should it be assumed that the minting by Cnut of light pence would have been associated with new bullion or market weights, or that the composition of the ora as an accounting unit would have had to change?

The only change of which we can be sure is that the introduction of the sterling penny led to the mark of silver becoming synonymous with 160 minted pence and accepted as an accounting unit for that sum, and likewise the mark of gold as £6, or nine marks of silver.⁸³ The reason for this seemingly low ratio of value between the metals may be that the mark was introduced into England with the Viking invasions of the ninth century and is first recorded, in the shape of half-marks of gold, in King Alfred's treaty of the 880s with the king of the East Anglian Danes, Guthrum.⁸⁴ The Scandinavian gold mark would have weighed about 210 grams,⁸⁵ compared with an eleventh-century English silver mark of 233 grams. If the former was still in use for gold, a ratio of 9:1 between the two marks would reflect a true ratio of 10:1 between equal weights of the two metals.

Did troy weight come to England from Flanders?

Before the close of the twelfth century the suffix 'of silver' was dropped from accounting terminology and 160 pence became known simply as a mark. The memory of an Anglo-Scandinavian mark of eight oras of sixteen pence had apparently faded by then, but might it not have been the origin of the Bruges silver mark, first noted in 1132, which contained six ounces and weighed the same as 128 English sterlingweights?⁸⁶ Its ounce weighed just one-third of a sterlingweight more than a Flemish gold ounce. Why would the Flemings have introduced a mark of this strange composition, apparently at least half a century after the English mark had been redivided into 160 sterling pennyweights, unless the figure of 128 had had some historical significance for them? Could the Bruges gold mark of eight ounces have been replaced for silver by this smaller mark of six slightly heavier ounces as a consequence of the reduction in the English pennyweight? And was this how the ounce came into being that was eventually replicated in English troy?⁸⁷

It may also be asked why the mercantile pound of Bruges contained the curious number of fourteen of the same ounces, as Pegolotti informs us.⁸⁸ Multiplying 14 by $21\frac{1}{3}$ gives a Bruges pound of $298\frac{2}{3}$ sterlingweights, which is suspiciously close to 300, or fifteen Tower ounces. The pound weight introduced at the Scottish mint in the time of David I, and long known as King

⁸¹ Nightingale 1984, 241–3.

⁸² Lyon 1971, 104.

⁸³ This is apparent from entries in the Pipe Roll of 31 Henry I – see *EHD* II, 572–5 for the account of Gloucestershire.

⁸⁴ *EHD* I, 380–1 (no. 34).

⁸⁵ Brøndsted 1960, 181, citing Nordic gold hoards of the time of the migrations, containing rings which are multiples of a gold *ore* weighing about 26.4 g.

⁸⁶ See above, p. 228.

⁸⁷ If Æthelred's ora was the same as that in Domesday Book and was equated with the later Cologne and Tower ounces, 128 Æthelred pennyweights would have weighed a mark of eight of these ounces, William having redivided the ora into 20 sterlingweights. 128 of the latter would amount to 6.4 ounces. A conversion into six slightly heavier ounces would have made sense.

⁸⁸ Evans 1936, 237.

David's Pound, contained fifteen ounces and 300 sterlings.⁸⁹ It is hard to escape the conclusion that both Bruges and Edinburgh had been influenced by an English pound of 300 sterlingweights, derived in turn from Æthelred's pound of fifteen oras which he required to be used in every market and by which his money was to be received.⁹⁰

Ghyssens thought the correspondence between the Flemish silver and mercantile ounce and the English troy ounce could have been a deliberate alignment of the Flemish ounce with the English system, but felt he could not reach a conclusion because of lack of agreement by scholars on the antiquity of English troy weight.⁹¹ If instead the Flemish ounce was a by-product of the reduction of the English pennyweight, with the pound of fourteen ounces enabling a close link to be maintained with the English mercantile pound, it may be that in due course troy weight came to England from Flanders and that that is why it has a continental name.

Pegolotti never mentions troy in an English context, though he says that the goldsmiths of London have a mark $5\frac{1}{3}$ sterlings heavier than the Tower mark, and use it for buying and selling silver vessels and other objects that are not being converted into bullion.⁹² Now $5\frac{1}{3}$ sterlings is a precise number, not to be dismissed lightly given Pegolotti's credentials, but it happens to produce a result exactly half-way between Tower and troy weight and has been dismissed by Connor as an error of calculation because, he says, the goldsmiths' mark must have been troy.⁹³ A statute of 1363 appears to equate the goldsmiths' pound some years later than Pegolotti with two Paris marks,⁹⁴ thereby implying that a goldsmith's mark would have been equal to a Paris mark and therefore eight sterlingweights heavier than the Tower mark, but troy as such is not mentioned.

There can be little doubt that what we know as troy weight was not employed in any way in the English coinage in Pegolotti's time, and it probably never had been.⁹⁵

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⁸⁹ Burns 1887, I, 4.

⁹⁰ See above, p. 236, and n. 56.

⁹¹ Ghyssens 1986, 67.

⁹² Evans 1936, 255.

⁹³ Connor 1987, 123.

⁹⁴ Ruding 1840, I, 231, quoting Statute 37EIII, Cap. 7, Edition 1577.

⁹⁵ Philip Grierson demonstrated that the shillings of the early Kentish laws, which contained twenty sceattas, must have been the small gold coins that numismatists have long called thrýmsas. Since these weigh in the region of 20 troy grains, Professor Grierson proposed the equation of the gold sceatt with one such grain (Grierson 1961). However, because of minting charges it is possible that the shilling of the laws was slightly heavier than the minted coin. There are indications that at a later date a sceatt was regarded as a silver weight equivalent to one-fortieth of an ounce, which (without making assumptions as to the exact weight of that ounce) would very likely have been between 10 and 12 grains and therefore of similar intrinsic value to the Kentish gold sceatt (Lyon 1969, 217).

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THE ENGLISH COINAGE OF 1153/4–1158

MARTIN ALLEN

Introduction

THE settlement of the civil war between the supporters of King Stephen and Henry of Anjou (the future Henry II), negotiated at Winchester in November 1153, included an agreement to restore the unity of the English coinage, which had been disrupted by the issue of local coinages.¹ It is now generally accepted that Stephen *BMC* type 7 (the Awbridge type) was the result of this agreement, becoming the only type produced by the English mints from late 1153 or 1154 to Henry II's introduction of the *Cross-and-Crosslets* (*Tealby*) coinage in 1158.² The surviving coins of type 7 offer an exceptionally good opportunity to examine the organization of the English mints and their output at a moment of transition, when a single national coinage was re-imposed in the parts of the country that had been beyond the control of the king's government for many years.³ It is now some fifty years since F. Elmore Jones published his classic study of type 7, and the substantial numbers of new coins provided by hoards and single-finds in recent years have made the need for an updated survey of the type increasingly imperative.⁴ This article presents a new corpus and die study of type 7, and it examines the mints, moneyers, hoards, single-finds, metrology and mint output of the type.

The essential starting point for any study of type 7 is the collections of the British Museum, which have been considerably augmented since the publication of Elmore Jones's article by the acquisition of many of his own coins and a large part of the major hoard found at Wicklewood (Norfolk) in 1989. The Wicklewood hoard included 28 coins of type 7, and a find at Portsdown Hill (Hampshire) in 1995 has provided another 25.⁵ A hoard found at Vaida in Estonia in 1896 had 55 coins from dies of type 7 (including one type 6/7 mule), 19 of which are now in the Rumjanceff (Pushkin) Museum in Moscow.⁶ The publication of the type 7 coins in many other museums by volumes in the *SCBI* series has been of considerable assistance in the preparation of this article, and the records of single-finds in the *BNJ* Coin Register and the Fitzwilliam Museum's Corpus of Early Medieval Coin Finds (EMC) have also been fruitful sources of material.⁷

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¹ Stubbs 1876, i, 296–7 (*Forma publica percussa eadem in regno celebris erit ubique moneta*).

² Blackburn 1994, 161–2, 166, 198–9.

³ The restoration of a unified national administration begun in 1153 has been analysed by Amt 1993 and White 2000.

⁴ Elmore Jones 1955–7. Robert Seaman compiled an unpublished corpus of type 7 in the early 1980s.

⁵ See the review of hoards below, pp. 250–3.

⁶ See below, pp. 251–3.

⁷ EMC and the Anglo-Saxon and Norman coins in the first fifty volumes of *SCBI* can be searched online at www.fitzmuseum.cam.ac.uk/coins/emc.

The mints and moneyers of type 7

Elmore Jones began his article on type 7 with a review of additions and amendments to the lists of mints and moneyers in G.C. Brooke's *BMC* of the Norman coinage, published in 1916.⁸ A survey of the changes to Elmore Jones's own lists, and the reasons for them, also seems to be a good place to start a discussion of the new Corpus of type 7, which appears in Appendix A.⁹ Table 1 summarizes the changes.

TABLE 1. Amendments to the Elmore Jones lists of mints and moneyers

<i>Mint</i>	<i>Additions</i>	<i>Deletions</i>
Bath	Alvred	
Bedford	Davit; Iohan	
Buckingham	Rodbert	
Bury St Edmunds	Ace[lin]; Gilebert	
Cambridge	?	
Canterbury	Edmond; Ricard; Rodbert M	
Colchester	Randulf	
Dunwich	Nicol(e); Rogier?	
Hereford	Saric	
Ilchester	?	
Ipswich	Davit; Rodbert	Alfric?; Pa(i)en
Leicester	Simon	
Lincoln	Gurth	Gladwin or Oslac?
London	G—asebi; Ricard R; Ricard S; Roger	
Northampton	Pa(i)en	
Norwich	Jocelin; Rogier	
Oxford	Simon	
Rye	Rawulf	
Salisbury	Edmund	
Shaftesbury	Larence	
Shrewsbury	Simound	
Stamford?	Aschil	
Steyning	(?Rodb)ert	
Thetford	Hacun	
Watchet	Henri	Hue?; Ti—
York	Martin	Martin or Turstan?

Elmore Jones himself was responsible for many of the new or revised attributions in Table 1, including the publication of coins of the Bedford moneyer Davit and the Rye moneyer Rawulf, and a coin reattributed from London to Ilchester.¹⁰ A new coin of the Northampton moneyer Paen demonstrated that this mint and moneyer did exist in type 7, although a penny of this moneyer formerly attributed to Northampton had been shown to be a misattributed coin of Lincoln.¹¹ Elmore Jones also published a coin of Bury St Edmunds, heavily tooled on the obverse, which had an apparently unaltered reverse naming a moneyer – Acelin (abbreviated to Ace) – already attested in Stephen *BMC* types 1 and 2.¹² Elmore Jones returned to the subject of this coin in a later publication, when he had another specimen from the same reverse die to compare with it.¹³ R.P. Mack's indispensable survey of the coinage of Stephen added the Ipswich moneyer 'Davi(d)', but a coin that appeared on the London market in 1968 showed that the full reading was Davit.¹⁴ This new coin also enabled Elmore Jones to correct his attribution of a die-duplicate to Pa(i)en, who could now be deleted from the list of Ipswich moneyers.¹⁵ Elmore Jones suggested that

⁸ Elmore Jones 1955–7, 537–8; Brooke 1916.

⁹ Elmore Jones 1955–7, 548–53, tabulates the mints and moneyers, and their coins.

¹⁰ Elmore Jones 1960–1; Elmore Jones 1962, 71 (nos 1–2), pl. IV, 13–14; Corpus nos 2, 87, 217.

¹¹ Elmore Jones 1970; Corpus nos 109, 159.

¹² Elmore Jones 1966; Corpus no. 20.

¹³ Elmore Jones 1975, 152–3; Corpus no. 21.

¹⁴ Mack 1966, 57, no. 114 (a); Bryant 1968, Corpus no. 88.

¹⁵ Elmore Jones 1955–7, 537, 540, 549; Elmore Jones 1969; Corpus no. 89.

another coin of Ipswich might possibly be attributed to the otherwise unrecorded moneyer Alfrie, but the partly illegible moneyer's name actually seems to be Rodbert.¹⁶ A penny of this moneyer from the same obverse die, tentatively attributed to Castle Rising by Elmore Jones, must be another coin of Ipswich.¹⁷ Elmore Jones was uncertain about the reading of a coin of York in Copenhagen, suggesting either Martin or Turstan as the moneyer's name, but the first two letters of the name seem to be **MA**, indicating that the moneyer is Martin, previously recorded in Stephen type 1.¹⁸ The moneyer's name on two difficult coins of Watchet, which Elmore Jones read as **h**— (possibly Hue) and **TI**—, can be reconstructed as **HENRI**.¹⁹ A particularly problematic specimen, which Elmore Jones condemned as an irregular coin of 'crude work', is from an apparently normal obverse die used with a reverse die having the rather enigmatic reading **G[--]ASEBI:ONVND[--]**.²⁰ This seems to be an official London coin of an otherwise unrecorded moneyer, with the second colon of the reverse inscription and the initial letter **L** of the mint-signature omitted.²¹

Single-finds have provided many of the entries in Table 1.²² The penny of the Bedford moneyer Davit published by Elmore Jones was found in a garden in Cambridge, and when Marion Archibald published a coin of a new Thetford moneyer, Hacun, it was said to have been found 'near Cambridge'.²³ The *BNJ* Coin Register has published single-finds of coins of the Bedford moneyer Iohan, Randulf at Colchester, Nicol(e) at Dunwich, Rogier at Norwich, and Edmund at Salisbury.²⁴ The only recorded type 7 coin of Cambridge is a cut halfpenny reported to the Fitzwilliam Museum's EMC in 2001, which was found in Lincolnshire in the 1980s.²⁵

Further additions to the lists of mints and moneyers in type 7 have come from the Wicklewood, Portsdown Hill and Vaida hoards. The Wicklewood hoard provided a new mint (Oxford), a new London moneyer (Roger), and the enigmatic moneyer **R**— (Rogier?) at Dunwich.²⁶ The small but important hoard of type 7 coins from Portsdown Hill added another new mint (Shrewsbury), and three new moneyers: Gilebert at Bury St Edmunds, Saric at Hereford, and Ricard S at London.²⁷ The Vaida hoard has provided significant additions to our knowledge of type 7 through the publication of the Moscow parcel by Elmore Jones and Blunt in 1967, and it was also the source of the coin of the Ipswich moneyer Davit published in 1968, although it was not realised at first that these coins came from Vaida.²⁸ The Moscow parcel included a coin of the Bath moneyer Alvred, which was independently published by Mack.²⁹ Elmore Jones and Blunt attributed one of the Moscow coins to a previously unrecorded Bramber moneyer, Rodbert, but this is actually a coin of a new Canterbury moneyer, Rodbert M.³⁰ A third coin in Moscow, which seemed to read —**AD:ON:ST**—, supplied a new but unfortunately incomplete moneyer's name from a mint which was tentatively identified as Stafford or Stamford.³¹ The first two letters of the mint's name are difficult to decipher, but they actually seem to be **SA**, in which case the mint is Salisbury, Sandwich, Shaftesbury or Shrewsbury.

E.J. Harris and R. Sharman have published a type 7 penny of the moneyer Aschil which they attributed to the Stamford mint.³² There was a moneyer Ascil at Stamford in Henry I type 5, but as this type was struck in the first decade of the twelfth century, about fifty years before the issue of

¹⁶ Elmore Jones 1955–7, 537, 540, 549; Corpus no. 92.

¹⁷ *BMC* 185; Elmore Jones 1945–8b; Elmore Jones 1955–7, 544–5, pl. XXXI. 1–2; Corpus no. 93.

¹⁸ Elmore Jones 1955–7, 551; Galster 1972, no. 1396; for Martin in type 1 see Brooke 1916, II, nos 133–4; Corpus no. 296.

¹⁹ Elmore Jones 1955–7, 551; Corpus nos 271–2.

²⁰ Elmore Jones 1955–7, 553; Corpus no. 127.

²¹ Eaglen 1999, 144–5, discusses the suggested attribution of this coin to Huntingdon.

²² The single-finds in the Corpus from identified mints are analysed below, pp. 253–4.

²³ Archibald 1967; Corpus no. 264.

²⁴ *BNJ* Coin Register [hereafter CR] 1988, no. 232; CR 1992, no. 294; CR 1996, no. 304; CR 1997, no. 186; CR 1999, no. 131; Corpus nos 4, 50, 56, 182, 224.

²⁵ EMC 2001.0038; CR 2001, no. 101; Corpus no. 29.

²⁶ Corpus nos 60, 147, 207.

²⁷ Corpus nos 24, 80, 140, 248.

²⁸ Elmore Jones and Blunt 1967; Bryant 1968.

²⁹ Elmore Jones and Blunt 1967, 90 (no. 23); Mack 1966, 56, pl. II, 99z; Corpus no. 1.

³⁰ Elmore Jones and Blunt 1967, 90 (no. 24); Corpus no. 34.

³¹ Mack 1966, 58–9 (no. 135b); Elmore Jones and Blunt 1967, 86, 92 (no. 38); Corpus no. 249.

³² Harris and Sharman 1979, 284, no. 6; Corpus no. 250.

Stephen type 7, it is unlikely that Ascil and Aschil are the same man. The mint-signature on this coin (STN) might possibly refer to Steyning, which Michael Sharp has argued should be added to the list of type 7 mints from a coin reading STEN.³³ Sharp has suggested that the name of the moneyer of this second coin, only the three last letters of which are legible, is Rodbert, and that this might be the same man as the contemporary moneyer of that name at Bramber, Hastings, London and Canterbury.³⁴ Rodbert is a common enough name on the twelfth-century English coinage for it to occur at different mints without a connection of this kind, but it is certainly possible that the moneyer of Sharp's coin held office in various mints during the issue of type 7.

The type 7 coins in the portion of Dr W.J. Conte's important collection of Norman coins acquired by the Fitzwilliam Museum in 2001 include two new mints (Buckingham and Leicester) and a new moneyer (Larence at Shaftesbury), while the coins from the collection of Elmore Jones selected by the British Museum after his death in 1982 have provided a new London moneyer (Ricard R).³⁵ Coins of two new Canterbury moneyers – Edmond and Ricard – have appeared on the market since the 1980s, and Lord Stewartby has acquired coins of another two new, or newly-recognised, moneyers: Gurth at Lincoln and Jocelin at Norwich.³⁶ Elmore Jones and Henry Mossop were aware of another penny of Gurth, on which only the first, round, letter of the moneyer's name was partly visible, and which had been the basis of the listing of Gladwin or Oslac as a type 7 moneyer at Lincoln.³⁷ The coin of Jocelin is completely new, but this moneyer was already known from the pipe rolls, which name him as one of five former moneyers of Norwich who owed £23 15s. in 1159/60 and later years, presumably as all or part of a 'redemption' payment incurred on leaving office in 1158.³⁸ The new Shaftesbury moneyer Larence is also named in the pipe rolls, paying a debt of 26s. 8d. in 1159/60.³⁹

Appendix B lists the mints and moneyers of the type 7 mints from the beginning of the reign of Stephen to class A of the *Cross-and-Crosslets* coinage.⁴⁰ The mints of type 7 include all of the nineteen mints recorded in types 2 and 6, which constituted the coinage of the southern and eastern parts of England under Stephen's direct control between the mid-1140s and 1153.⁴¹ A further seventeen mints of type 7 (eighteen if Stamford is included) had been active in type 1, but were beyond the reach of Stephen's administration during the issue of types 2 and 6. Four type 7 mints (Bath, Huntingdon, Ilchester and Watchet) seem to have been closed since before the introduction of Henry I type 15, which is probably to be associated with the purge of moneyers in 1124–5.⁴² Three or four of the mints (Bramber, Hedon, Peterborough(?) and Steyning) enter the list of English mints for the first and only time in the twelfth century.⁴³ The issue of type 7 was not restricted to mints that had already produced the coinage of Stephen, during the civil war or in the early years of the reign.

The new national network of mints established for the production of type 7 did not last long. Twenty-six of the type 7 mints (over half of the total) were not involved in the recoinage at the introduction of the *Cross-and-Crosslets* coinage in 1158, although two of these mints (Ipswich and Lewes) were reopened before the end of the coinage in 1180.⁴⁴ It is possible that some of the

³³ Sharp 1982; Corpus no. 251. Harris and Sharman read the mint-signature on the coin of Aschil as STNF, which would unambiguously indicate the Stamford mint, but inspection of the coin itself, which is now in the Fitzwilliam Museum, has shown that the ending of the reverse inscription is STN.

³⁴ Sharp 1982. Stewart 1978, 126, first noted the possible common identity of the moneyers named Rodbert.

³⁵ Corpus nos 19, 97, 139, 247.

³⁶ *NCirc* 96 (1998), no. 1174; *Patrick Finn List* 18 (2000), no. 104; Corpus nos 30, 33, 101, 178.

³⁷ Elmore Jones 1955–7, 549, pl. XXXI, 11; Mossop 1970, pl. LXXXVII, 19 (dies Aa); Corpus no. 103.

³⁸ *Pipe Roll* [hereafter *PR*] 6 *Henry II* [1159/60], 3; *PR* 9 *Henry II* [1162/3], 29; *PR* 13 *Henry II* [1166/7], 17. References to type 7 moneyers in the pipe rolls are reviewed below, pp. 249–50.

³⁹ *PR* 6 *Henry II* [1159/60], 42.

⁴⁰ See pp. 291–9.

⁴¹ Blackburn 1994, 162–6. Buckingham has been listed as a type 6 mint in Appendix B on the basis of a coin which seems to read RO[—]ET:ON:BVCI: (CR 1993, no. 269). Blackburn 1993 attributes this coin to Rochester, reading the mint-signature as RVCI. There are no other coins attributed to the Rochester mint in the coinage of Stephen, and Blackburn's suggestion that the mint-signature might be an elision of ROVCI is not entirely convincing.

⁴² Blackburn 1990, 64–71.

⁴³ English 1979, 215–16, discusses the short-lived establishment of a mint at Hedon, which was a new borough founded by William of Aumale, Earl of York, in the late 1130s or early 1140s.

⁴⁴ The total of 26 closed type 7 mints includes the doubtful mints of Peterborough and Stamford.

type 7 mints closed before 1158, as the recoinage after the introduction of type 7 may have lasted no more than about two years (1153/4–c.1156), followed by a period of reduced activity at fewer mints, which was to be the normal pattern in the recoinages of 1158–c.1160, 1180–2, 1205–7, 1247–50 and 1279–81. Nevertheless, the discontinuity between the geographical distribution of the mints before and after 1158 is very clear. There was also a clear break in the administration of the mints, as only nine of the eighty-eight fully identified moneyers' names of type 7 occur again at the same mints in the *Cross-and-Crosslets* coinage, supporting the suggestion of Derek Allen that there was a general dismissal of moneyers in 1158.⁴⁵

The network of mints in type 7 restored the typical pattern of the late Anglo-Saxon and Norman coinage, with a mint in most of the counties, additional mints in the south and east (well placed to receive silver from foreign trade), and extra mints also in the old West Saxon royal heartland of Somerset and Wiltshire.⁴⁶ Fig. 1 shows the locations of the mints, and Table 2 lists them by county, grouping the counties into six regions, which will be used to analyse various aspects of type 7. Fifteen of the counties in Table 2 have only one listed mint, and in thirteen of these the mint was in the county town (italicized in the table). Nine counties do not have mints, but this might be rectified in some cases by future discoveries.⁴⁷ It is worth noting that ten or eleven mints have been added to the list of type 7 mints in the fifty years or so since the publication of Elmore Jones's article (Bath, Buckingham, Cambridge, Dunwich, Ilchester, Leicester, Oxford, Rye, Shrewsbury, Stamford(?) and Steyning). Kent had two additional mints at the important Channel ports of Dover and Sandwich, and Sussex seems to have had a total of six mints. In East Anglia, Norfolk had a total of three mints, and Suffolk had four, which may have been at least partly sustained by silver from the East Anglian wool trade, although the analysis of die statistics below suggests that this cannot have been on the same scale as in the south-eastern region.⁴⁸ The new mint at Hedon on the Humber may well have minted silver from the wool trade, as Hedon served as a port for the export of wool from the East Riding of Yorkshire in the thirteenth century.⁴⁹ The additional mints in Somerset and Wiltshire were in accordance with the traditional system of mint administration in these counties.⁵⁰ The Peterborough mint, if it struck the coin of BVR attributed to it, presumably owed its existence to the grant of a mint to the abbot of Peterborough, who also had the right to a moneyer in Stamford.⁵¹

Only three of the type 7 mints are known to have had more than three moneyers: London, Canterbury and Norwich. Thirteen moneyers have been recorded at London (if the enigmatic G[—]ASEBI is included), but the number actually in office may perhaps have been fourteen, which is the number of London moneyers known in *Cross-and-Crosslets* class A.⁵² Canterbury probably had seven moneyers during the issue of type 7, which was a customary allowance from the reign of Æthelstan (924–39) to the early thirteenth century, although only five names are known at present.⁵³ Norwich had an exceptionally large number of moneyers immediately before and after 1158: nine names are recorded in type 7, and eight in *Cross-and-Crosslets* class A. The die-linking of the type 7 Norwich moneyers Willem and Willem G (a phenomenon otherwise only found at Thetford) may indicate that Willem was replaced by Willem G.⁵⁴ Thus it is possible that Norwich had an allowance of only eight moneyers in type 7, but five Norwich moneyers charged with a debt in the pipe rolls after the end of the type include a moneyer not yet attested from the coins of type 7 (Jordan), along with four of the known moneyers of the type (Al(f/v)ric(h), Jocelin, Ra(nd)ulf and Thor).⁵⁵

⁴⁵ Allen 1951, lxii–lxiii, cxix. The names shared by type 7 and the *Cross-and-Crosslets* coinage are: Willem at Bury St Edmunds; Ricard and Rogier at Canterbury; Driu at Hereford; Rodbert at Ipswich; Geffrei, Ricard and Rodbert at London; and Willem at Wilton.

⁴⁶ Stewart 1992, 61–5, discusses the geographical distribution of the English mints between the reform of Edgar in c.973 and 1158.

⁴⁷ Lancashire and Rutland never had mints.

⁴⁸ See pp. 258–9. Mayhew 1984, 166, and Dawson and Mayhew 1987, 115, suggest that an apparent increase in output from East Anglian mints in the 1170s may have been connected with the wool trade.

⁴⁹ Elmore Jones 1949–51, 28; English 1979, 216; Kermode 2000, 674–5.

⁵⁰ Stewart 1992, 63.

⁵¹ Wells 1929; Wells 1934–7, 49–77; Blackburn 2000, 144–5; Corpus no. 208.

⁵² See Appendix B, p. 000.

⁵³ Brooke 1916, I, clxv; Allen 1951, cxx. The number of moneyers recorded from the coins of Canterbury fluctuates in the twelfth and early thirteenth centuries, and the allowance of seven moneyers ended permanently after the issue of Short Cross class 6c3, c.1217 (Allen 2001a, 10).

⁵⁴ See p. 254 and Corpus nos 196–9 and 202–4.

⁵⁵ *PR 9 Henry II* [1162/3], 29; *PR 13 Henry II* [1166/7], 18; see p. 000.



Fig. 1. Mints of type 7

TABLE 2. Geographical distribution of type 7 mints

<i>Area/Country</i>	<i>Mints</i>
1. South east	
Essex	London
Kent	Colchester
Surrey	Canterbury; Dover; Sandwich
Sussex	—
	Bramber; Hastings; Lewes; Pevensey; Rye; Steyning
2. South west	
Cornwall	—
Devon	Exeter
Dorset	Shaftesbury
Hampshire	Winchester
Somerset	Bath; Ilchester; Taunton; Watchet
Wiltshire	Salisbury; Wilton
3. West	
Gloucestershire	Gloucester
Herefordshire	Hereford
Shropshire	Shrewsbury
Worcestershire	Worcester
4. Midlands and north west	
Bedfordshire	Bedford
Berkshire	—
Buckinghamshire	Buckingham
Cambridgeshire	Cambridge
Cheshire	—
Derbyshire	—
Hertfordshire	—
Huntingdonshire	Huntingdon
Lancashire	—
Leicestershire	Leicester
Northamptonshire	Northampton; Peterborough?
Nottinghamshire	Nottingham
Oxfordshire	Oxford
Rutland	—
Staffordshire	—
Warwickshire	Tamworth; Warwick
5. East Anglia	
Norfolk	Castle Rising; Norwich; Thetford
Suffolk	Bury St Edmunds; Dunwich; Ipswich; Sudbury
6. Lincolnshire and Yorkshire	
Lincolnshire	Lincoln; Stamford?
Yorkshire	Hedon; York

Type 7 moneyers in the pipe rolls

In 1905 P.W.P. Carlyon-Britton published translations of the references to mints and moneyers in the pipe rolls of Henry II.⁵⁶ The references relating to the introduction of the *Cross-and-Crosslets* coinage in 1158 have been thoroughly reviewed by Derek Allen, and it is not intended to repeat that review here, but it may be useful to collect together the references that seem to relate to named type 7 moneyers.⁵⁷ This material is summarized in Appendix C, under the county or counties of the original accounts, with notes of corresponding mints and moneyers known from the coins.⁵⁸ Many of the entries in the pipe rolls are simply repetitions of entries from previous years, and these have been omitted from Appendix C. Elmore Jones first drew attention to the

⁵⁶ Carlyon-Britton 1905. Carlyon-Britton's extracts end in 1176/7, which was the last year of the published pipe rolls available when he was writing.

⁵⁷ Allen 1951, lxxv, lxxvii–lxxviii, lxx–lxxi, lxxx, lxxxii–lxxxv, lxxxvii, cxiv–clxxiv *passim*.

⁵⁸ See pp. 297–9.

importance of the pipe rolls for the study of type 7 in an article arguing that coins of BRAN should be attributed to Bramber, as a moneyer of some of these coins (Orgar) is named in a Sussex account.⁵⁹ He calculated that 50 of the 75 moneyers' names in Carlyon-Britton's extracts could be identified with names on the coins of Stephen or Henry II, and that seventeen of these names were only found on the coinage of Stephen.⁶⁰ In a subsequent article, adding Hedon to the list of type 7 mints, Elmore Jones suggested that the Hedon moneyer Gerard might be the Grimsby moneyer of that name, who was recorded as paying a debt of one mark of gold (£6) in the pipe roll of 1156/7.⁶¹ A further examination of the pipe roll evidence in Elmore Jones's principal article on type 7 paid particular attention to the Salisbury moneyer Wineman, the moneyer Gillebert named in Norfolk and Suffolk accounts, and Alexander, who appears in Essex accounts.⁶² Elmore Jones tentatively suggested that the moneyer of a coin reading —OLBERN:ON:S— might be Colbert, named as a moneyer in the Dorset account of the 1159/60 pipe roll, and that the mint of this coin is Shaftesbury.⁶³ This suggestion has received some support from the discovery of a coin of the other moneyer named in this Dorset account (Larence), with a clear Shaftesbury mint-signature. The only name in the pipe roll entries not now matched on a coin of type 7 is the Norwich moneyer Jordan.

TABLE 3. Debts of type 7 moneyers in the pipe rolls of 1157/8–1160/1

<i>Mint</i>	<i>Moneyer</i>	<i>Owed</i>
Sudbury	Gilebert(t/d)	£40
Dover	Adam	50 marks
Norwich	Al(f/v)ric(h), Jocelin, [Jordan], Ra(nd)ulf, Thor	£23 15s.
London	Alisand(re/er)	£20
Exeter	Alric	20 marks
Norwich	Willem or Willem G	20 marks
Bath	Alvred	£10
Sudbury	Edward	£6 18s. 5d.
London	Geffrei	10 marks
Wilton	Willem	10 marks
Bedford	Tomas	£5
Norwich	Al(f/v)ric(h)	£5
London	Wulwin	£4 6s. 8d.
Salisbury	Vin(e)man	5 marks
Shaftesbury	Larence	2 marks
Bramber	Orgar	£1
Ipswich or Norwich	Davi(t)	1 mark
Shaftesbury	Colbern	1 mark
Thetford	Gefrei	1 mark

Table 3 summarises the original sums owed in the pipe rolls from 1157/8 to 1160/1, all of which might relate to the moneyers' 'redemption' payments on leaving office in 1158, although only the 50 marks (£33 6s. 8d.) owed by the Dover moneyer Adam is specifically described as a *redemptio*.⁶⁴ The sums are tabulated in order of size, showing an extremely wide range from only 1 mark (13s. 4d.) to as much as £40. The Waverley Annals refer to a judgement of the moneyers (*justitia de monetariis*) in 1158, and the amounts may have been individually assessed for each

⁵⁹ *PR 7 Henry II* [1160/1], 13.

⁶⁰ Elmore Jones 1945–8a, 119–21.

⁶¹ Elmore Jones 1949–51, 29; *PR 3 Henry II* [1156/7], 83; Whitting 1969, 6–7.

⁶² Elmore Jones 1955–7, 545–7. Elmore Jones argued that Gillebert was the Sudbury moneyer of that name, and that Alexander may have been a Colchester moneyer. To date all of the coins of Alexander (Alisander or Alisandr(e) on the coins) with a legible mint name belong to the London mint. Allen 1951, lxxvii–lxxviii, lxx–lxxi, clii, assumes that Gillebert was the Norwich moneyer of that name in the *Cross-and-Crosslets* coinage.

⁶³ Elmore Jones 1955–7, 552; Corpus no. 246.

⁶⁴ Allen 1951, lxx, lxxx, lxxxii–lxxxv, lxxxvii, discusses redemption payments and sums owed by new moneyers after appointment. The nature of the 10 marks owed by the Wilton moneyer William is uncertain, as the name Willem occurs on Wilton coins of the *Cross-and-Crosslets* coinage as well as in type 7. It is possible that the Willem of type 7 was allowed to remain in office for the production of the *Cross-and-Crosslets* coinage, or that a new moneyer of that name was charged with the debt of 10 marks after the introduction of the new coinage.

moneyer in such a judgement, with punitively large sums for those considered to have been guilty of misconduct.⁶⁵ The sums in odd amounts (£23 15s., £6 18s. 5d. and £4 6s. 8d.) may have been the residue of larger debts already partly paid. The five Norwich moneyers held responsible for the debt of £23 15s. are named in the pipe rolls in alphabetical order with the exception of Thor (*Thort* or *Thord* on the rolls), who is named first and may have had some official recognition as a leading moneyer. This debt was never paid, with the explanation in 1166/7 that some of the five were dead and the others had no money. In 1164/5 it was reported that the Bedford moneyer Thomas had fled to Scotland, and in 1166/7 he was dead.

Hoard

Four hoards (Awbridge, Portsdown Hill, Vaida and Wicklewold) have provided relatively substantial numbers of coins of type 7, and six other hoards are known to have contained coins of the type.⁶⁶

(a) *Awbridge (Hampshire), c.1902*

The hoard that gave its name to the coinage of 1153/4–58 included at least 31 pennies of the type, and 104 coins of Henry II's *Cross-and-Crosslets* coinage. Many of the coins were sold by the finder before their importance was realised, but the remaining coins were sent to the British Museum for examination.⁶⁷ H.A. Grueber published 138 out of a total of perhaps 190 coins in the hoard, which implies that the original number of type 7 pennies was probably more than 31, and possibly about 35–40.⁶⁸

(b) *Colchester (Essex), 1902*

The 10,926 coins recorded in the earlier of the two major thirteenth-century hoards from Colchester (c.1237) included three remarkable survivals from the twelfth century: two coins of Henry I and one type 7 penny of Gloucester.⁶⁹

(c) *Isle of Man, in or before 1769*

A find of at least seven English and Scottish coins found on the Isle of Man (and deposited c.1180) included a type 7 penny of unidentified mint and moneyer.⁷⁰

(d) *'Kent area', 1986*

In 1988 the late Dr David Rogers published a summary of a recent find of fourteen coins of the reign of Stephen (2 pennies, 2 cut halfpennies and 10 cut farthings).⁷¹ Unfortunately, Rogers did not provide any information about the circumstances of the find, and the eleven coins of type 7 in the summary (1 penny, 2 halfpennies and 8 farthings) are not individually described, apart from a note that one of the halfpennies was a 'forgery'.⁷² Rogers suggested that the unusual predominance of cut fractions in the parcel indicated that it was a 'purse hoard'.⁷³ It is also possible that the parcel was the residue of a larger find, which originally had a greater proportion of uncut pennies. The total number of coins recorded is relatively small, but the absence of coins later than type 7 suggests that it was deposited during the currency of the type.

⁶⁵ Allen 1951, lxxx; Luard 1864–9, ii, 238.

⁶⁶ Blackburn 1994, 201–5, reviews hoards containing coins of Stephen.

⁶⁷ Grueber 1905; Brooke 1916, xxxi–xxxii; Allen 1951, lvi–lvii; Thompson 1956, no. 16; Mack 1966, 106; Blackburn, no. 20; Allen 2002, no. 6.

⁶⁸ There is some confusion about the total number of coins in the hoard, as Grueber 1905, 354, states that about 50 coins from an original total of about 180 were disposed of by the finder, but the addition of about 50 to the published total of 138 provides an original figure of about 190.

⁶⁹ Grueber 1903, 112–13, 118; Thompson 1956, no. 94; Mack 1966, 107; Blackburn 1994, no. 27; Allen 2002, no. 68. Grueber 1903, 112 n. 1, refers to another coin of Stephen, of unspecified type, which was not surrendered to the authorities.

⁷⁰ Stewart 1964; Blackburn 1994, no. 26.

⁷¹ Rogers 1988; Blackburn 1994, no. 15.

⁷² Rogers 1988, 38. Rogers may have purchased some of the coins, but the none of the fractional coins from his collection deposited at the Fitzwilliam Museum on loan can now be connected with the find.

⁷³ Rogers 1988, 39.

(e) *Portsdown Hill (Hampshire), 1995*

This hoard of 22 pennies and 3 cut halfpennies was found by two metal-detector users between January and March 1995.⁷⁴ All of the coins belong to type 7, which suggests that this find should be dated to the period of issue of the type. The hoard was declared not to be Treasure Trove at an inquest in March 1995, and most of the coins were sold at auction as the 'Portchester hoard' (Portsdown Hill is within sight of Portchester Castle).⁷⁵

(f) *Wicklewood (Norfolk), 1989*

The important find from Wicklewood (deposited c.1170) contained 28 coins of type 7 (22 pennies, 5 cut halfpennies and 1 cut farthing).⁷⁶ This hoard, which is to be published by Marion Archibald, consisted of 482 coins (355 pennies, 104 cut halfpennies and 23 cut farthings) of Henry I, Stephen, Matilda, David I of Scotland and Henry II.⁷⁷

(g) *Continental hoards*

The largest recorded source of type 7 coins is the hoard found in Vaida (Wait), Jüri (now St Jürgens) parish, Estonia, in 1896. It consisted of at least 448 coins, including 206 English coins from Æthelred II to Stephen type 7 (there were 54 type 7 pennies and one type 6/7 'mule').⁷⁸ A manuscript list compiled by A. von Howen in 1908 has provided the basis of a publication by A. Molvögin and I. Leimus.⁷⁹ The hoard, as listed by Howen, was originally kept intact in the Estonian Provincial Museum (now the Historical Museum) in Tallinn, but it was dispersed with most of the museum's coins during the Russian capture of Tallinn in September 1944. Many of the coins are now in the Rumjanceff (Pushkin) Museum in Moscow, having been purchased from a private collector in the 1960s. The Moscow parcel was published, with other English coins in the museum (then the Museum of Fine Arts) by Elmore Jones and Blunt in 1967, and it was republished by A.A. Beliakov in 1996.⁸⁰ A coin recovered in Estonia in the 1970s, which was originally believed to be part of the Maidla hoard, is now known to have come from the Vaida hoard, and another coin from the hoard has been found in a private collection in Latvia.⁸¹ The type 7 penny of Ipswich sold on the London market in 1968, which was said to have been found near Archangel in Russia, is probably also from the Vaida hoard.⁸² Another Estonian hoard, found at Haapsalu (Hapsal) in 1878, included a type 7 penny of Dover,⁸³ and a third Estonian find from an uncertain location before 1936 is said to have had a type 7 penny, of an unidentified mint.⁸⁴ None of the Estonian hoards with coins of type 7 is known to have contained any later English coins. The hoard of about 5,000 coins found at Daeli, Hedmark, Norway, in 1840 (deposited c.1200) included a fragmentary type 7 penny of the moneyer Willelm.⁸⁵

The contents of the four hoards containing relatively large numbers of coins of type 7 are summarised in Table 4. The Portsdown Hill hoard could be regarded as a purse hoard, lost during the issue of type 7 and only containing coins of the current type. The inference that the recoinage of old coins after the introduction of type 7 in 1153/4 was relatively complete receives some

⁷⁴ Lodder 1995; Steele 1995. A type 7 penny of Ipswich said to have been found 'near Portsmouth' in 1997 (EMC 1999.0136; Corpus no. 90) may be a further coin from this hoard.

⁷⁵ Buckland Dix & Wood, 28 June 1995, lots 171–191. Hampshire County Council Museums & Archives Service acquired seven of the coins at the sale, and the finders retained five coins, listed in the auction catalogue as lot 191.

⁷⁶ Christie's, 15 May 1993, lots 1–159; Blackburn 1994, no. 21; Allen 2002, no. 12. A type 7 penny of Norwich found at Wicklewood in 1993 (CR 2003, no. 293; EMC 2003.0243; Corpus no. 189) might be a stray from this hoard.

⁷⁷ The statistics on the Wicklewood hoard in this article are largely based upon a provisional and unpublished list produced by Marion Archibald, and I am extremely grateful for her permission to use these figures here.

⁷⁸ Bauer 1929, no. 36; Friedenthal 1936, no. 36; Tönnisson 1962, no. 15; Potin 1967, no. 13; Molvögin 1980; Kluge 1981, E 52; Molvögin 1990, no. 16; Blackburn 1994, no. 32; Molvögin and Leimus 1995; Leimus 1997b; SCBI 51, 5, 43–5 (no. 64).

⁷⁹ Molvögin and Leimus 1995.

⁸⁰ Elmore Jones and Blunt 1967; Beliakov 1996, 96–7.

⁸¹ Leimus 1979, no. 1048; Molvögin and Leimus 1995, 106, 118; SCBI 51, 5, 45.

⁸² Bryant 1968; Elmore Jones 1969; Corpus no. 88.

⁸³ Tallgren 1926, 141; Bauer 1929, no. 58; Friedenthal 1936, no. 21; Tönnisson 1962, no. 126; Potin 1967, no. 52; Leimus 1997a; Williams 2000, 988 (no. 23); SCBI 51, 45–6 (no. 68); Corpus no. 52.

⁸⁴ Schulenburg 1936, 190–2; Potin 1967, no. 106; Kluge 1981, E 51; Molvögin 1990, no. 15; Blackburn 1994, no. 33; Molvögin 1994, 79; SCBI 51, 44 (no. 65).

⁸⁵ Holst 1936, 14 (B1); Holst 1939, 110–12; Allen 1951, liii–liv; Blackburn 1994, no. 35; Corpus no. 312.

TABLE 4. Hoard summaries

<i>Category</i>	<i>Portsmouth Hill</i>	<i>Vaida</i>	<i>Awbridge</i> ⁸⁹	<i>Wicklewood</i>
Anglo-Saxon	0	109	0	0
William I and II	0	10	0	0
Henry I	0	14	0	17
Stephen type 1 ⁹⁰	0	18	3	46
Stephen type 2	0	0	0	109
Stephen type 6	0	0	0	135
Stephen type 7:				
Bath	0	1	0	0
Bedford	0	1	0	2
Bramber	0	1	0	0
Bury St Edmunds	1	1	0	2
Canterbury	0	2	4	2
Dover	0	3	0	0
Dunwich	0	0	0	1
Gloucester	0	2	0	0
Hastings (type 6/7 mule)	0	1	0	0
Hedon	1	0	0	0
Hereford	1	1	0	0
Huntingdon	0	1	1	0
Ilchester	0	0	1	0
Ipswich	0	2	1	1
Lewes	0	0	1	0
Lincoln	0	0	1	1
London	2	6	7	5
Norwich	1	4	0	10
Oxford	0	0	1	1
Pevensey	1	1	0	0
Rye	1	1	0	0
Salisbury	3	0	2	1
Sandwich	0	1	0	0
Shrewsbury	1	0	0	0
Sudbury	0	2	0	0
Tamworth	0	1	0	0
Thetford	0	3	0	0
Warwick	0	0	1	0
Wilton	2	1	4	0
Winchester	1	0	1	0
York	1	1	1	0
Uncertain mint	6	18	4	2
Type 7 irregular	3	0	1	0
<i>Type 7 sub-total</i>	25	55	31	28
Reign of Stephen: other types	0	0	0	6
Henry II <i>Cross-and-Crosslets</i>	0	0	104	140
Foreign ⁹¹	0	242	0	1
Total	25	448	138	482

support from the Awbridge hoard, which included thirty-one coins of type 7, and only three of earlier types. It is also worth noting that eleven of the fourteen coins in the inadequately recorded 'Kent area' parcel, which seems to have been deposited before the end of type 7, belonged to the type.⁸⁶ Only two English hoards deposited during the issue of the *Cross-and-Crosslets* coinage between 1158 and 1180 (Awbridge and Wicklewood) are known to have included coins of type 7, and it may be suggested that the type was effectively removed from circulation, although not from some reserves of savings, during the recoinage of 1158-c.1160.⁸⁷ The Wicklewood hoard shows evidence of the retention of old coins as savings in a much more extreme form than the Awbridge

⁸⁶ Rogers 1988.

⁸⁷ Hoards deposited during the issue of the *Cross-and-Crosslets* coinage are analysed and listed by Allen 1951, xlv-lx, and Archibald and Cook 2001, 3–16.

hoard, as it included 312 English and Scottish coins struck before 1154, or 65 per cent of the total. It had 109 coins of Stephen type 2 (23%), and 135 of type 6 (28%), but these types seem to have been entirely absent from the Awbridge and Portsdown Hill hoards, both of which were deposited in a county (Hampshire) beyond the normal area of circulation of types 2 and 6 before the settlement of 1153.⁸⁸

The analysis of the hoards in Table 5, which uses the regional division of the mints shown in Table 2, clearly indicates local bias in the Portsdown Hill, Awbridge and Wicklewood finds, although the numbers of coins involved are relatively small.⁹² It is surely not a coincidence that the largest percentages of south-western coins are in the Portsdown Hill and Awbridge hoards, both from Hampshire, or that the Wicklewood hoard from Norfolk has the highest percentage of East Anglian coins. The period of issue of type 7 may have been too brief for the full and uniform integration of the coins of each region into the currency throughout England. The Vaida hoard has relatively high percentages of south-eastern and East Anglian coins, which might indicate that its coins originally came from the south-east or east of England, although the absence of types 2 and 6 in this find seems to suggest otherwise.⁹³ A possible answer to this conundrum might be that there was an interruption of the supply of English coinage to Estonia during the production of types 2 and 6, between the mid-1140s and 1153/4.

TABLE 5. Regional analysis of hoard coins attributed to a mint

Region	Portsdown Hill	Vaida	Awbridge	Wiklewood
South east	4 (25%)	16 (43%)	12 (46%)	7 (27%)
South west	6 (38%)	2 (5%)	8 (31%)	1 (4%)
West	2 (13%)	3 (8%)	0	0
Midlands and north west	0	3 (8%)	3 (12%)	3 (12%)
East Anglia	2 (13%)	12 (32%)	1 (4%)	14 (54%)
Lincolnshire and Yorkshire	2 (13%)	1 (3%)	2 (8%)	1 (4%)
Total	16	37	26	26

Single-finds

Table 6 summarizes the forty-one single-finds in the Corpus attributed to a mint.⁹⁴ The numbers of coins are small, but there is a clear similarity between the regional distributions by findspot and by mint. East Anglia dominates the statistics, with nearly half of the figures in both of the distributions. If single-finds were the only source of evidence for the distribution of coinage in mid twelfth-century England it might be assumed that East Anglia had about half of the currency, but the analysis of mint outputs below contradicts this assumption. East Anglia's share of estimated numbers of obverse dies is only 13% in type 7 and also in *Cross-and-Crosslets* class A, which might provide some indication of the proportion of the English currency available for recoinage in the region on two occasions in the 1150s.⁹⁵ The dominance of East Anglia in the single-find statistics seems to be a measure of the relative popularity and success of metal-detecting in the region, and not a genuine indication of East Anglia's share of England's money

⁸⁸ Blackburn 1994, 162–6, discusses types 2 and 6, and their area of circulation.

⁸⁹ The Awbridge hoard figures include six coins listed by Grueber 1905 which cannot now be identified in the Corpus: one Canterbury coin of an uncertain moneyer reading CANT, two London coins (ONLVN and ONLVND), and three coins of uncertain mints. A coin tentatively attributed to Huntingdon by Grueber 1905, 357–60, is from irregular dies (see p. 255 and Corpus no. 376).

⁹⁰ Including coins from erased dies and irregular local variants of type 1.

⁹¹ Including imitations of Anglo-Saxon types.

⁹² Table 5 and subsequent tables analysing data by region exclude the coins tentatively attributed to the Peterborough and Stamford mints, and all other coins without a definite attribution to one mint.

⁹³ William Lean (*pers. comm.*) has suggested that the four coins of the Dover moneyer Adam in the Corpus (nos 52–5), all of which are from Estonian hoards (three in the Vaida hoard and one in the Haapsalu hoard), might be part of a larger parcel.

⁹⁴ Table 6 includes two possible strays from hoards (Corpus nos 90 and 189), but it does not include the lead striking from type 7 dies (Corpus no. 237).

⁹⁵ See pp. 258–9.

supply. Twenty-three (56%) of the coins in Table 6 were not found in their region of origin, which is an indication of the mobility of type 7 coins in circulation, but the East Anglian finds confirm the inference from the hoard evidence that coins of local mints could have a disproportionate share of the currency of a region. Thirteen (65%) of the twenty East Anglian finds are from mints in the region, although East Anglia has only 13% of the total estimate of obverse dies in type 7.

TABLE 6. Regional analysis of single-finds

<i>Findspot area</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>Total</i>
<i>Mint area</i>							
1. South east	2	0	0	2	3	1	8
2. South west	1	1	0	1	1	0	4
3. West	0	0	0	0	0	0	0
4. Midlands and north west	0	0	0	2	1	2	5
5. East Anglia	3	3	0	1	13	0	20
6. Lincolnshire and Yorkshire	0	1	0	1	2	0	4
Total	6	5	0	7	20	3	41

The supply of dies

Brooke suggested in his *BMC* of the Norman coinage that the dies were usually made in London, and this suggestion has been supported by the discovery of four dies for various mints and reigns at the Thames Exchange site in London.⁹⁶ A piece of lead with impressions from type 7 dies of the Salisbury moneyer Wineman, found in the spoil from excavations at Billingsgate, may have been used to test the dies before they were sent to Salisbury.⁹⁷ Each moneyer may have received an initial supply of one pair of dies, at the smaller mints at least, but many of the moneyers used more than one set of dies.⁹⁸ There are various examples of changes in the spelling of the mint or moneyer name on the reverse dies of a moneyer, which may be evidence of successive supplies of dies.⁹⁹ The links between obverse dies at eleven mints (Bury St Edmunds, Canterbury, Exeter, Gloucester, Ipswich, London, Norwich, Salisbury, Sudbury, Wilton and York) show that it was not always necessary to return all of a moneyer's dies to London to obtain new ones, and one old obverse die of type 6 was used by the Hastings moneyer Rodbert after the introduction of type 7.¹⁰⁰ There are only two examples of die-links between moneyers (Willem and Willem G at Norwich, and Gefrei and Hacun at Thetford),¹⁰¹ which suggests that the moneyers normally had their own sets of dies, used in separate workshops.¹⁰² One obverse die of type 7, which may be early in the type as it has affinities with type 2, was used with an Ipswich reverse die of the moneyer Rodbert and a die tentatively attributed to Castle Rising by Elmore Jones, but this seems to be another Ipswich die.¹⁰³

⁹⁶ Brooke 1916, I, cxxxv–cxxxix; Archibald, Lang and Milne 1995.

⁹⁷ Archibald 1991, 341, 345–6 (no. 56); Corpus no. 237.

⁹⁸ The ratio between the point estimates of the total numbers of obverse and reverse dies used to produce type 7 (see p. 258) is 1:1.17, which suggests that dies were not always supplied in pairs.

⁹⁹ hIVN and IVN at Castle Rising; [NIC]OL and [NIC]OLE at Dunwich; [LI]NCO and [N]ICOL on coins of the Lincoln moneyer Hue; ALISANDRE, ALISANDR and [ALIS]ANDER at London; TERRI D and TERRI, also at London; ALFRICH, [AL]FRIC and ALVRIC, and WILLEM and GILL[EM], both at Norwich; RAWVL and RAW[VL]F at Rye; VINMAN and [V]INEMA[N] at Salisbury.

¹⁰⁰ Corpus no. 71.

¹⁰¹ Archibald 1967 noted the sharing of an obverse die by the Thetford moneyers Gefrei and Hacun, with the observation that the development of a die-flaw running from the right-hand fleur of the crown shows that the first recorded coin of Hacun (Corpus no. 264) is earlier than the only known specimen of Gefrei (no. 263).

¹⁰² Biddle 1976, 396–422, discusses the properties of the Winchester moneyers in surveys of c.1110 and 1148, arguing that they had separate workshops until 1180. Nightingale 1982, 49, suggests that the sharing of obverse dies at eight mints (not including Winchester) in the *Cross-and-Crosslets* coinage noted by Allen 1951, cviii–cix, indicates that the moneyers were working in centralized mints rather than individual workshops after 1158.

¹⁰³ Elmore Jones 1945–8b; Elmore Jones 1955–7, 539, 541–2, 544–5; Corpus nos 92–3. Elmore Jones 1955–7, 539, 541–2, described these coins as mules between types 2 and 7, and used this as evidence to support the suggestion that type 2 might have immediately preceded type 7. The obverse die has a beaded mantle along the line of the shoulder, as in type 2, but the bearded portrait is characteristic of type 7.

Seventeen of the coins in Corpus are from irregular dies that appear to be unofficial. Two die-duplicates from a clearly irregular reverse die reading [---]LISIT:[1?]-IR:NONET have an obverse die that seems to be official.¹⁰⁴ These coins might have been made by a moneyer who was circumventing the normal system for the supply of reverse dies, if they are not simply counterfeits produced by a forger who had illegally obtained an official obverse die. Four further pairs of dies are apparently irregular, and without any general similarity that might suggest a common origin. The most accomplished of the four obverse dies, used with a literate reverse die of ROGIE[-]:[---]JN, is shown to be anomalous by its use of the king's unabbreviated title REX, not seen on any regular coin of Stephen since type 1, and by the appearance of annulets instead of pellets in the king's mantle.¹⁰⁵ Another, much cruder, obverse die is used with a reverse die that W.J. Andrew rather imaginatively interpreted as a locally-made Carlisle die reading [h]ENRIC:DE[CA]RD, but which actually seems to read [---]G:DELA[---]D.¹⁰⁶ The remaining irregular coins are from three obverse dies which have a distinct family resemblance, although one of them has the sceptre to the right and not the left, as on all other irregular and official dies.¹⁰⁷ Andrew suggested that the coin from one of these obverse dies (the reversed-sceptre die) in the Awbridge hoard was the work of a 'Scottish' engraver, but this was based upon the historically untenable assumption that it was struck for Prince Henry of Scotland as Earl of Huntingdon (1136-52), in Huntingdon.¹⁰⁸ Nevertheless, it is possible that the coins from this group of dies were struck in the area of northern England under Scottish control from the late 1130s to 1157 (Northumberland and Cumberland), using northern Pennine silver.¹⁰⁹ The weights of the seven undamaged specimens are generally relatively high, with a mean of 1.38 g (the figure for all coins from regular dies is 1.33 g), whereas it might be expected that forgeries would tend to be of light weight.¹¹⁰ The findspots of these coins do not however provide any real evidence of a northern origin of this coinage, as they have been found in the two Hampshire hoards from Awbridge and Portsdown Hill, and in Norfolk and Lincolnshire.¹¹¹ On the present evidence the most likely explanation of the other irregular coins in the Corpus is that they are contemporary forgeries, and this is also a possible explanation for the 'northern' coins. The pipe rolls and the *Red Book of the Exchequer* record the costs of punishing forgers during the issue of type 7. In the 1155/6 pipe roll 6s. 8d. was spent on the mutilation of a 'false moneyer' in the London account, and in Leicestershire the 'conduct' of false moneyers, presumably to their punishment, cost 12s. 6d.¹¹² It is possible that some of the moneyers responsible for local independent coinages before the introduction of type 7 continued their activity with forgeries of the type.

The die study

All of the coins in the Corpus available for direct study or with published images could, in principle, be subjected to a die study. In practice, many of the coins are so badly struck that diagnostic features of the dies needed to establish die identities can be difficult to see or entirely missing. This problem is particularly acute with cut halfpennies and farthings, which can only show a fraction of the dies in any case. It has been possible, however, to carry out a die study of the coins with inscriptions indicating the mint or the moneyer, or both, and also of the coins from irregular dies. In the Corpus the dies for each mint have sequential numbers with a prefix indicating the mint (e.g. BED:1/1 is the first pair of dies for the Bedford mint). Irregular dies are

¹⁰⁴ Corpus nos 361-2.

¹⁰⁵ Corpus nos 363-4.

¹⁰⁶ Elmore Jones 1955-7, 553; Corpus nos 368-9. I have not traced the source of Elmore Jones's reference.

¹⁰⁷ Corpus nos 370-7.

¹⁰⁸ Andrew 1906, 344-9; Grueber 1905, 359-60; Brooke 1916, II, 376 n.; Elmore Jones 1955-7, 539, 553; Corpus no. 376.

¹⁰⁹ The northern Pennine mines and the use of their silver by local mints are discussed by Allen 1951, xcvi, cxxiii-cxxvii; Allen 2003, 3-4, 33, 68. Wilson 1968, 238-9, discusses the early history of the county of Cumberland, which was known as the county of Carlisle until 1177.

¹¹⁰ See pp. 262-3.

¹¹¹ Corpus nos 370, 375-7.

¹¹² *PR 2 Henry II* [1155/6], 4, 45; Allen 1951, cxi. The *Red Book of the Exchequer* records 16s. 8d. as the cost of mutilating a false moneyer and other offenders in 1155/6 (Hall 1896, II, 658).

indicated by IRR, and dies not attributed to a mint have the prefix UNC for uncertain. The obverse dies in the UNC category have not been given numbers, as it has not been possible to make a definitive comparison between these dies and all of the other obverse dies in the study to establish beyond doubt that there are no die identities (although identities have been looked for). The obverse dies of five Dunwich coins (Corpus nos 56–60) and single specimens of Lincoln (no. 108) and London (no. 147) have also not been given numbers, as these coins do not show enough of the dies for a definitive identification of them. The results of the die study are summarised in Tables 7 and 8.

TABLE 7. Obverse dies in the die study

<i>No. of coins from die</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>	<i>8</i>	<i>9</i>	<i>No. of dies (d)</i>	<i>No. of coins (n)</i>
Bath	1									1	1
Bedford	3			1						4	7
Bramber	5	1								6	7
Buckingham	1									1	1
Bury St Edmunds	4	2								6	8
Cambridge	1									1	1
Canterbury	11	1								12	13
Castle Rising	1	2								3	5
Colchester	2	1								3	4
Dover	2	1								3	4
Exeter	3									3	3
Gloucester	2		1							3	5
Hastings	1									1	1
Hedon			1							1	3
Hereford	1	2								3	5
Huntingdon	1	2								3	5
Ilchester	1									1	1
Ipswich	3	1	1							5	8
Leicester	1									1	1
Lewes	1	1								2	3
Lincoln	1	1		2						4	11
London	27	4	2							33	41
Northampton	1									1	1
Norwich	9	2	1	1		1	1		1	16	42
Nottingham	1									1	1
Oxford	2									2	2
Peterborough?	1									1	1
Pevensey	1	2	1							4	8
Rye	4	1								5	6
Salisbury	4	3		1						8	14
Sandwich	6									6	6
Shaftesbury	2									2	2
Shrewsbury	1									1	1
SA—	1									1	1
Stamford?	1									1	1
Steyning	1									1	1
Sudbury	5	1								6	7
Tamworth		1								1	2
Taunton	1									1	1
Thetford				1						1	4
Warwick	1									1	1
Watchet	2									2	2
Wilton	4	1	2							7	12
Winchester		1								1	2
Worcester		2								2	4
York	4	1								5	6
Irregular	4	2	1			1				8	17
Total	129	36	10	6	0	2	1	0	1	185	283

TABLE 8. Reverse dies in the die study

<i>No. of coins from die</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>	<i>8</i>	<i>9</i>	<i>No. of dies (d)</i>	<i>No. of coins (n)</i>
Bath	1									1	1
Bedford	5	1								6	7
Bramber	5	1								6	7
Buckingham	1									1	1
Bury St Edmunds	2		2							4	8
Cambridge	1									1	1
Canterbury	9	2								11	13
Castle Rising	1	2								3	5
Colchester	2	1								3	4
Dover	2	1								3	4
Dunwich	5									5	5
Exeter			1							1	3
Gloucester	2		1							3	5
Hastings	2									2	2
Hedon	1	1								2	3
Hereford	1	2								3	5
Huntingdon	1	1								2	3
Ilchester	1									1	1
Ipswich	3	1	1							5	8
Leicester	1									1	1
Lewes	1	1								2	3
Lincoln	3	1		2						6	13
London	32	5								37	42
Northampton	1									1	1
Norwich	9	3	1	2			1		1	17	42
Nottingham	1									1	1
Oxford	2									2	2
Peterborough?	1									1	1
Pevensey	1	2	1							4	8
Rye	4	1								5	6
Salisbury	3	1	2	1						7	15
Sandwich	6									6	6
Shaftesbury	2									2	2
Shrewsbury	1									1	1
SA —	1									1	1
Stamford?	1									1	1
Steyning	1									1	1
Sudbury	4		1							5	7
Tamworth		1								1	2
Taunton	1									1	1
Thetford	1		1							2	4
Warwick	1									1	1
Watchet	2									2	2
Wilton	1		1	2						4	12
Winchester	2									2	2
Worcester		2								2	4
York	3		1							4	6
Uncertain mint	8									8	8
Irregular	4		1	1						9	17
Total	143	33	14	8	0	0	1	0	1	200	299

The figures in Tables 7 and 8 can be the basis of estimates of the total numbers of dies in type 7, using methods developed by Warren Esty.¹¹³ Esty has warned against the use of data biased by non-random clumps of die-duplicates,¹¹⁴ and eight Wicklow hoard coins from only two pairs of dies (NORW:1/1 and NORW:12/12) might be regarded as a potential source of bias.¹¹⁵ The

¹¹³ Esty 1986; Crafter 2002, 240–1.

¹¹⁴ Esty 1986, 196, 214–15.

¹¹⁵ The coin found at Wicklow in 1993 (Corpus no. 189), which might be a stray from the hoard, is from the same dies as four of the hoard coins (NORW:12/12). The Wicklow hoard also included two further Norwich coins of the moneyer Hildebran (Corpus nos 173, 176).

number of coins involved is however only a small fraction of the total (less than three per cent of the obverse and reverse die statistics), and their exclusion from the calculations would not have a significant effect upon the estimates of total numbers of dies.¹¹⁶ In Table 9, n is the number of coins in the study, d is the total number of dies recorded, and d_1 is the number of dies known from only one coin (the 'singletons'). Esty's method consists of the estimation of the coverage (C_{est}), which is the proportion of the coins originally struck that were from dies represented in the study, and point estimates of the original numbers of dies (D_{est}), with 95 per cent confidence intervals.¹¹⁷

TABLE 9. Die study data and estimates

	n	d	d_1	C_{est}	D_{est}	95% confidence intervals
Obverse dies	283	185	129	0.544	459	c.370-570 (371-567)
Reverse dies	299	200	143	0.522	520	c.420-645 (420-644)

Mint output

Estimates of the numbers of dies used in each of the six mint regions may provide some indication of the relative size of the mint output in the region, although it is possible that some of the smaller mints may have had a lower output per die than the larger mints, if their moneymen were unable to use the dies to their full capacity. At the larger mints moneymen were more likely to replace their dies, probably after the replaced dies had been fully used.¹¹⁸ Tables 10, 11 and 12 calculate regional die estimates for type 7, *Cross-and-Crosslets* class A in the recoinage of 1158–c.1160, and class C after this recoinage, in the 1160s. The statistics for the *Cross-and-Crosslets* coinage, which are based upon the data in Tables 14 and 15 below, include an additional category for the northern counties of Cumberland, Northumberland and Durham.¹¹⁹ The comparison between the regional percentages of the total estimates in Table 13 shows a broad similarity between the figures in type 7 and class A, which encourages the belief that these sets of figures are reflecting a common pattern in the two national recoinages of the 1150s. The south-eastern mints evidently had by far the largest share of output in both of these issues, and this share may have been even larger than the figures suggest, if the smaller mints in other regions tended to have a lower output per die than the larger mints of the south east (London and Canterbury). The dominance of the south-eastern mints may have been principally based upon bullion received from foreign trade, as it was to be later.¹²⁰ The rise in the south-eastern percentage from 44% in class A to 62% in class C can be interpreted as an indication of the increase in the proportion of total output provided by imported silver when the recoinage ended. The south-eastern percentage in type 7 (57%) is almost as high as the figure for class C, but one possible explanation of this is that the type 7 percentage partly reflects the dominance of silver from foreign trade in a post-recoinage period, from c.1156 to the end of type 7 in 1158. The much lower level of the East Anglian figures (10–13%) suggests that this region's postulated share of imported silver from the wool trade cannot have been very substantial in the 1150s and 1160s.¹²¹ The sharp rise in the Lincolnshire and Yorkshire percentage, from only 3% in type 7 to 12% in class A and 11% in class C, is difficult to explain, unless it was also related to foreign trade. In general, the figures for type 7 and class A may provide some indication of the relative sizes of the coinage stocks in each region available for recoinage, with various caveats. The figures for the south east, which are probably considerably inflated by the use

¹¹⁶ Without the eight coins from the Wicklewood hoard the point estimates would increase from 459 to 470 obverse dies, and from 520 to 534 reverse dies.

¹¹⁷ I have used formula J1 in Esty 1986 for C_{est} , H5 for D_{est} , and C2 for the 95% confidence intervals, with the refinements summarised in Crafter 2002, 240–1.

¹¹⁸ See pp. 254–5 for a discussion of the supply and replacement of type 7 dies.

¹¹⁹ See pp. 261–2 for Tables 14 and 15. Cumberland and Northumberland were under Scottish control from the early years of the reign of Stephen to 1157.

¹²⁰ Spufford 1988, 139–40; Mayhew 1992, 83–4; Miller and Hatcher 1995, 190–4, discuss the English wool trade in the mid-twelfth century, which may have been the principal source of England's supplies of imported silver in this period.

¹²¹ Mayhew 1984, 166, and Dawson and Mayhew 1987, 115, suggest that there may have been a connection between the wool trade and an increase in East Anglian mint activity in the 1170s.

of dies to mint imported silver, are presumably larger than the proportion of the currency in the south east, and the same might apply to a lesser extent to the East Anglian figures. Furthermore, the mint output of the northern counties was largely based upon silver mined in the northern Pennines.¹²² Consequently, the percentages for the south west, west, and Midlands and north west may under-represent the local coinage stocks, although these regions had many smaller mints with possibly underused dies. The figures for Lincolnshire and Yorkshire are contradictory and difficult to interpret.

TABLE 10. Regional analysis of type 7 obverse dies

<i>Region</i>	<i>n</i>	<i>d</i>	<i>d_i</i>	<i>C_{est}</i>	<i>D_{est}</i>
South east	94	76	61	0.351	303
South west	38	26	18	0.526	67
West	15	9	4	0.733	15
Midlands and north west	22	16	12	0.455	48
East Anglia	74	36	23	0.689	69
Lincolnshire and Yorkshire	20	10	5	0.750	17
Total	263	173	123		519

TABLE 11. Regional analysis of Cross-and-Crosslets class A obverse dies

<i>Region</i>	<i>n</i>	<i>d</i>	<i>d_i</i>	<i>C_{est}</i>	<i>D_{est}</i>
South east	133	81	50	0.624	170
South west	65	35	16	0.754	57
West ¹²³	35	16	7	0.800	24
Midlands and north west	60	27	9	0.850	37
East Anglia	75	35	12	0.840	49
Lincolnshire and Yorkshire	60	29	13	0.783	45
Northern counties	42	6	0	1.000	6
Total	470	229	107		388

TABLE 12. Regional analysis of Cross-and-Crosslets class C obverse dies

<i>Region</i>	<i>n</i>	<i>d</i>	<i>d_i</i>	<i>C_{est}</i>	<i>D_{est}</i>
South east	120	70	41	0.658	137
South west	21	11	5	0.762	18
West	4	1	0	1.000	1
Midlands and north west	16	7	1	0.938	8
East Anglia	72	18	5	0.931	22
Lincolnshire and Yorkshire	28	15	7	0.750	25
Northern counties	35	10	1	0.971	11
Total	296	132	60		222

TABLE 13. Percentages of total die estimates

<i>Region</i>	<i>Type 7</i>	<i>Class A</i>	<i>Class C</i>
South east	58	44	62
South west	13	15	8
West	3	6	<1
Midlands and north west	9	10	4
East Anglia	13	13	10
Lincolnshire and Yorkshire	3	12	11
Northern counties	—	2	5

¹²² Allen 1951, xcvi, cxxiii–cxxvii; Allen 2003, 3–4, 33, 68.

¹²³ Including Pembroke.

Any estimate of the total output of the type 7 dies can only be tentative, as the average outputs of dies may have varied substantially from mint to mint, and there are no available data that would allow the calculation of outputs of dies in the twelfth century. Documented outputs of English penny dies in the thirteenth and fourteenth centuries are generally between about 20,000 and 50,000 coins per obverse die and about 10,000–20,000 coins per reverse die, which might provide some indication of the possible outputs of the type 7 dies.¹²⁴ Using these figures, the estimated c.520 type 7 reverse dies might have struck about £20,000–£45,000.¹²⁵

The size of the English currency in 1158

It should be possible, in principle, to derive an estimate of the size of the English silver currency in 1158 from the estimate of type 7 output, if it can be assumed that the contribution of pre-type 7 coins to the currency at that date was negligible, and if the extent of losses of type 7 coins from the English money supply by 1158 can be quantified.¹²⁶ The Portsdown Hill and Awbridge hoards certainly seem to indicate that pre-type 7 coins had no more than a minor role in the circulating currency after the recoinage at the introduction of type 7, although many older coins could remain in unused reserves of savings, as shown by the Wicklewood hoard.¹²⁷ The Vaida hoard demonstrates that type 7 coins were removed from the English currency by export, and the single-finds in the Corpus are evidence of casual losses in England, but the extent of such wastage from circulation is impossible to calculate. It is only possible to suggest that the total value of type 7 and other silver coins in the English currency in 1158 may have been smaller than the upper limit of the estimate of mint output in type 7 (c.£45,000).

The existing estimates of the currency in 1158 (£20,000–£50,000 and c.£30,000–£80,000) have been based upon Michael Metcalf's estimates of the numbers of dies used in class A of the *Cross-and-Crosslets* coinage, which approximately corresponds to the output of the recoinage of 1158–c.1160, and the assumption that the recoinage output can be directly related to the volume of the old coinage available for conversion into the new.¹²⁸ Metcalf's figures for the dies used in each of the six classes of the *Cross-and-Crosslets* coinage, which were calculated from data provided by an analysis of Derek Allen's *BMC* of the series, are capable of improvement.¹²⁹ Metcalf's reverse die estimates are extrapolated from his obverse die figures and not directly calculated, and he warned that his estimates are probably too high, one reason for this being that 'similar' coins noted by Derek Allen without identification of the dies were arbitrarily assumed to be from dies not otherwise represented in the statistics.¹³⁰ To obtain estimates comparable with the figures for type 7 it has been necessary to re-examine the data provided by the *BMC*, eliminating 'similar' coins without die identifications, and directly calculating estimates for the reverse dies as well as the obverse dies, using Esty's methods. The data are summarized in Tables 14 and 15, and the new estimates are calculated in Tables 16 and 17.¹³¹

The two sets of estimates are fairly similar in general, but the new class A estimates are significantly smaller than Metcalf's figures, which were the basis of the existing estimates of the currency in 1158. If the possible average die outputs suggested in the discussion of type 7 output (c.20,000–50,000 per obverse die and c. 10,000–20,000 per reverse die) are combined with the new estimates of class A dies, the total mint output in class A can be tentatively estimated to have been

¹²⁴ Allen 2004, 46–9.

¹²⁵ The estimated c.459 obverse dies could have produced about £40,000–£90,000, but the output of type 7 would have been restricted in practice by the more limited capacity of the reverse dies.

¹²⁶ In the mid-twelfth century the English silver currency was supplemented by foreign gold coins, discussed by Cook 1999.

¹²⁷ See above, pp. 252–3.

¹²⁸ Latimer 2003, 643; Allen 2001b, 598.

¹²⁹ Metcalf 1977, 26–31; Allen 1951.

¹³⁰ Metcalf 1977, 28. Metcalf's reverse die figures are the same as the obverse die statistics at all of the mints apart from Ipswich and London, where a 1:2 ratio was assumed. Crafter 2002, 239–41, uses data from a new die study of the *Cross-and-Crosslets* coins of Ipswich to estimate the numbers of obverse and reverse dies with a ratio of only 1:1.38 between the point estimates (81 obverse dies and 112 reverse dies).

¹³¹ The statistics for each class in Tables 14 and 15 include coins attributed to a class with a query, but coins without a tentative or definite attribution to one class are excluded.

TABLE 14. Cross-and-Crosslets obverse dies in BMC

Mint	Class A			Class B			Class C			Class D			Class E			Class F			Total		
	n	d	d _i	n	d	d _i	n	d	d _i	n	d	d _i	n	d	d _i	n	d	d _i	n	d	d _i
Bedford	1	1	1																1	1	1
Bristol	7	5	3	3	1	0				4	1	0	1	1	1	4	2	0	19	10	4
Bury St Edmunds	13	4	2	13	1	0	17	2	0	4	2	1	3	1	0	15	8	4	65	18	7
Canterbury	50	26	11	20	8	5	60	36	22	28	18	13	22	14	11	33	21	13	213	123	75
Carlisle/ Newcastle ¹³²	24	4	0				28	9	1	14	4	0	14	4	1	20	7	3	100	28	5
Chester	5	2	1							6	1	0							11	3	1
Colchester	6	4	2				9	3	1				5	2	0				20	9	3
Durham	18	2	0	4	2	0	7	1	0										29	5	0
Exeter	19	9	4	2	1	0	5	4	3	4	1	0							30	15	7
Gloucester	15	5	1																15	5	1
Hereford	9	3	1				4	1	0										13	4	1
Ilchester	8	5	3	3	2	1	3	2	1	5	1	0				1	1	1	20	11	6
Ipswich				8	2	0	18	8	2	17	4	0	5	4	2	33	22	16	81	40	20
Launceston	2	1	0																2	1	0
Leicester	10	4	1																10	4	1
Lewes																3	2	1	3	2	1
Lincoln	23	13	6	5	4	2	25	14	7	10	5	3	9	5	3	5	4	3	77	25	24
London	77	51	37	11	6	3	51	31	18	18	8	5	12	8	5	22	15	9	191	119	77
Northampton	24	11	4				13	6	1	2	1	0							39	18	5
Norwich ¹³³	37	21	9	2	2	1	13	3	1	5	2	0							57	28	11
Oxford	10	5	1							1	1	1	2	1	0				13	7	2
Pembroke	1	1	1																1	1	1
Salisbury	6	4	2																6	4	2
Shrewsbury	3	2	1																3	2	1
Stafford	5	2	1				3	1	0										8	3	1
Thetford	25	10	1				24	5	2	16	5	1				4	3	2	69	23	6
Wallingford	5	2	0																5	2	0
Wilton	11	4	1																11	4	1
Winchester	19	12	6				13	5	1	2	1	0	1	1	1				35	19	8
York	37	16	7				3	1	0	7	2	1							47	19	8
Total	470	229	107	71	29	12	296	132	60	143	57	25	74	41	24	140	85	52	1194	573	280

about £30,000–£76,000 from c.366 obverse dies, or £16,000–£32,000 from c.384 reverse dies. The class A output would have been limited in practice to the lower output of the reverse dies, and it would not have been entirely devoted to the recoinage of the old currency in circulation in 1158, as normal minting of silver from other sources would have continued during the recoinage. Perhaps about twenty per cent of the output of the estimated c.384 class A reverse dies may not have been connected with the recoinage, as the estimates for classes B to F indicate that normal output after the recoinage required about forty reverse dies per annum, and the recoinage probably lasted no more than about two years.¹³⁴ The lower weights of type 7 coins compared with the new *Cross-and-Crosslets* coinage must also be considered in the conversion of a class A output estimate into an estimate of the size of the currency in 1158. The weight standard of the new coinage may have been 22.5 grains (c.1.46 g), but the mean weight of undamaged type 7 pennies in the Corpus is only 1.33 g (20.6 grains), or about 91 per cent of the postulated *Cross-and-Crosslets* standard.¹³⁵ Thus the face value of the old currency reminted may have been about 10 per cent more than that of the mint output derived from it, which would imply that the suggested deduction of about 20 per cent from the class A output estimate to take account of non-recoinage output should be halved to about 10 per cent. The original estimate of recoinage output from the class A reverse dies (c.£16,000–£32,000) can be reduced to c.£15,000–£30,000, to provide a new estimate of the currency in 1158.

¹³² Obverse dies were shared between the Carlisle and Newcastle mints (see Allen 1951, cxxiii).

¹³³ Including two coins formerly attributed to Newark (Brooke 1916, II, nos 581–2).

¹³⁴ Allen 2001b, 598, n. 25.

¹³⁵ See below, pp. 262–3.

TABLE 15. Cross-and-Crosslets reverse dies in *BMC*

<i>Mint</i>	<i>Class A</i>			<i>Class B</i>			<i>Class C</i>			<i>Class D</i>			<i>Class E</i>			<i>Class F</i>			<i>Total</i>		
	<i>n</i>	<i>d</i>	<i>d_f</i>	<i>n</i>	<i>d</i>	<i>d_f</i>	<i>n</i>	<i>d</i>	<i>d_f</i>	<i>n</i>	<i>d</i>	<i>d_f</i>	<i>n</i>	<i>d</i>	<i>d_f</i>	<i>n</i>	<i>d</i>	<i>d_f</i>	<i>n</i>	<i>d</i>	<i>d_f</i>
Bedford	1	1	1																1	1	1
Bristol	10	6	4							3	1	0	2	2	2	4	2	0	19	11	6
Bury St Edmunds	13	3	1	13	1	0	17	4	0	4	1	0	3	1	0	15	10	6	65	20	7
Canterbury	49	25	9	20	11	4	61	39	24	27	16	10	23	16	14	33	22	16	213	129	77
Carlisle	10	2	0				12	5	2	7	2	0	2	1	0	8	4	2	39	14	4
Chester	5	2	1							6	1	0							11	3	1
Colchester	6	3	1				9	5	4				5	3	1				20	11	6
Durham	18	3	0	4	2	0	7	1	0										29	6	0
Exeter	19	7	1	3	2	1	5	4	3	4	1	0							31	14	5
Gloucester	15	6	2																15	6	2
Hereford	9	2	0	4	1	0													13	3	0
Ilchester	8	5	3	3	2	1	3	2	1	5	1	0				1	1	1	20	11	6
Ipswich				8	2	0	20	12	4	13	4	2	7	6	4	33	26	21	81	50	31
Launceston	2	1	0																2	1	0
Leicester	10	4	1																10	4	1
Lewes																3	2	1	3	2	1
Lincoln	22	15	9	6	5	4	28	15	8	10	5	3	9	5	3	3	3	3	78	48	29
London	72	60	44	11	10	9	52	38	30	20	13	8	14	9	5	22	20	18	191	150	114
Newcastle	16	4	0				17	9	2	5	3	2	11	4	0	12	7	3	61	27	7
Northampton	24	9	3				11	4	1	2	1	0				2	1	0	39	15	4
Norwich	38	20	7	3	2	1	11	5	1	5	2	0							57	29	9
Oxford	10	6	3							1	1	1	2	1	0				13	8	4
Pembroke	1	1	1																1	1	1
Salisbury	6	4	2																6	4	2
Shrewsbury	3	2	1																3	2	1
Stafford	4	3	2				4	1	0										8	4	2
Thetford	18	10	3				31	4	1	16	5	2				4	3	2	69	22	8
Wallingford	4	2	1				1	1	1										5	3	2
Wilton	11	4	1																11	4	1
Winchester	19	12	6				13	5	1	2	1	0	1	1	1				35	19	8
York	37	15	3	2	1	0	3	1	0	7	4	3							49	21	6
Total	460	237	110	77	39	20	305	155	83	137	62	31	79	49	30	140	101	73	1198	643	347

TABLE 16. Cross-and-Crosslets obverse die estimates

	<i>Class A</i>	<i>Class B</i>	<i>Class C</i>	<i>Class D</i>	<i>Class E</i>	<i>Class F</i>	<i>Total</i>
<i>n</i>	470	71	296	143	74	140	1194
<i>d</i>	229	29	132	57	41	85	573
<i>d_f</i>	107	12	60	25	24	52	280
<i>C_{est}</i>	0.772	0.831	0.797	0.825	0.676	0.629	
<i>D_{est}</i>	366	42	203	84	78	177	950
95% confidence intervals	c.325–415 (326–411)	c.30–55 (33–54)	c.175–235 (177–233)	c.70–105 (70–101)	c.55–110 (56–109)	c.135–230 (135–230)	
Metcalf estimates ¹³⁶	447	67	183	98	91	158	1044

Metrology

Mark Blackburn, in an analysis of the metrology of the coinage of Stephen, has argued that the weight standard of Stephen's four substantive types was about 22 grains (c.1.43 g), and that this had been established as the standard by Henry I in 1125.¹³⁷ The coins of types 1, 2 and 6 in his analysis had mean weights of 21.4, 21.1 and 21.0 grains respectively, and the modal weights of these three types were all in the range 21.5–21.9 grains. In contrast, 162 type 7 pennies had a lower modal range (21.0–21.4 grains), and a mean weight of only 20.6 grains (1.33 g).¹³⁸

¹³⁶ Metcalf's estimates for each class differ from the totals of his estimates for individual mints in four of the six classes (476 in class A, 61 in class B, 187 in class C and 100 in class D), and the combined total of the individual estimates is 1073.

¹³⁷ Blackburn 1994, 169–73.

¹³⁸ Blackburn 1994, 169–71.

TABLE 17. Cross-and-Crosslets reverse die estimates

	<i>Class A</i>	<i>Class B</i>	<i>Class C</i>	<i>Class D</i>	<i>Class E</i>	<i>Class F</i>	<i>Total</i>
<i>n</i>	460	77	305	137	79	140	1198
<i>d</i>	237	39	155	62	49	101	643
<i>d₁</i>	110	20	83	31	30	73	347
<i>C_{est}</i>	0.761	0.740	0.728	0.774	0.620	0.479	
<i>D_{est}</i>	384	66	270	100	103	287	1210
<i>95% confidence intervals</i>	c.340-435 (340-433)	c.45-90 (49-89)	c.230-315 (232-314)	c.80-125 (82-123)	c.70-150 (72-148)	c.205-405 (206-402)	
<i>Metcalf estimates</i>	559	85	233	114	115	238	1344

Blackburn suggested that his type 7 data may have been biased by the inclusion of a relatively large number of corroded or damaged coins, and he noted that ten type 7 pennies from the Wicklewood hoard had a much higher mean weight of 21.6 grains (1.40 g).¹³⁹ The statistics provided by 257 undamaged type pennies in the Corpus, summarized in Table 18, confirm the general tenor of Blackburn's figures.¹⁴⁰ The mean weight of the aggregate of coins from all sources is exactly the same as Blackburn's figure (1.33 g), and the mean for 21 coins from the Wicklewood hoard is significantly higher, at 1.39 g.

TABLE 18. Weights of type 7 pennies (grams)

<i>Source</i>	<i>No. of coins</i>	<i>Range of weights</i>	<i>Mean</i>	<i>Median</i>
Awbridge	20	1.08–1.51	1.31	1.315
Portsmouth Hill	13	1.10–1.40	1.25	1.21
Vaida	54	1.02–1.52	1.36	1.40
Wicklewood	20	1.17–1.47	1.39	1.425
Other sources	151	0.90–1.50	1.33	1.35
Aggregate	258	0.90–1.52	1.33	1.36

There is a wide variation in the statistics from the four hoards in Table 18, which might have been at least partly caused by differences in the overall states of wear and preservation of the coins in each hoard. It might also be suggested that there was some regional variation in the weights of newly issued coins, which could have been manifested in the Awbridge, Portsmouth Hill and Wicklewood hoards as a consequence of their local biases. To test this suggestion, Table 19 compares the weights of coins from sources other than the four hoards. The numbers of coins from all of the regions apart from the south east, south west and East Anglia are arguably too small to provide reliable statistics, but it is undeniable that there are substantial variations in the statistics, with means from 1.28 g to 1.36 g, and medians between 1.32 g and 1.40 g. The relatively high mean (1.36 g) and median (1.39 g) for East Anglian coins might provide an explanation for the relatively high mean and median of the Wicklewood hoard, and the lower figures for the south west (1.31 g and 1.32 g) and south east (1.30 g and 1.32 g) might help to explain the low means and medians of the Awbridge and Portsmouth Hill hoards. Thus it is possible that there was some real regional variation in the application of the national weight standard, with mints in East Anglia tending to produce heavier coins. There is no clear indication in the figures of what the weight standard of type 7 might have been, but there is at least some reason to believe that it was less than the 22½ grains (c.1.46 g) standard often associated with the English coinage in the twelfth century, which may have applied to the *Cross-and-Crosslets* coinage in 1158–80. The *Cross-and-Crosslets* pennies in five English hoards have mean weights between 1.36 g and 1.43 g, but the range of the means for the type 7 coins in the four hoards in Table 18 is lower, from 1.25 g to 1.39 g.¹⁴¹

¹³⁹ Blackburn 1994, 169.

¹⁴⁰ The figures in Table 18 exclude coins from irregular dies.

¹⁴¹ Allen 2005, 229, tabulates the weights of pennies in hoards of 1158–1279.

TABLE 19. Weights of pennies not from the major hoards (grams)

<i>Region</i>	<i>No. of coins</i>	<i>Range of weights</i>	<i>Mean</i>	<i>Median</i>
South east	54	0.90–1.48	1.30	1.32
South west	17	1.05–1.45	1.31	1.32
West	10	1.20–1.44	1.35	1.36
Midlands and north west	13	1.02–1.47	1.28	1.36
East Anglia	41	1.10–1.50	1.36	1.39
Lincolnshire and Yorkshire	12	1.17–1.48	1.35	1.355

Postscript

A new moneyer for the Lincoln mint

On 23 April 2006 a type 7 penny of a Lincoln moneyer previously unrecorded in the type was found by Mr Michael Smith at Thormamby, North Yorkshire, using a metal detector. This coin was discovered too late to be incorporated in the main text of this article, but it has been included in this year's Coin Register (no. 279). The moneyer's name begins with a G, which is followed by four or five illegible letters, an N, and finally a space for one more letter. The moneyer is probably Gladwine, who has been recorded at the Lincoln mint from Henry I type 13 to Stephen type 1 and an irregular local type of the reign of Stephen, although Godwine, doubtfully identified from a partly illegible coin of Stephen type 4, is another possibility.¹⁴² Another Lincoln coin of type 7, with only the initial G of the moneyer's name visible, might be attributable to this new moneyer for the type, but it is more likely to be a coin of the already recorded moneyer Gurth, as there seems to be space for only four letters after the G.¹⁴³

APPENDIX A. CORPUS AND DIE STUDY

The coins of type 7 are listed here in three sections, starting with specimens attributed to a mint or mints, followed by coins of uncertain mint, and ending with specimens from irregular dies. All of the coins available for study (directly or through illustration) are included, together with coins for which there is a written description and a reasonable presumption that the coin has not been included in the Corpus from another source. Each coin has been allocated a number in one sequence, with an asterisk when the coin is illustrated. All of the die-combinations found in the die study are shown on the plates (Pls 31–41), and the coins of uncertain mint not in the die study are also illustrated. The coins included in the die study have been allocated numbers identifying the mint and the obverse and reverse dies, as explained above.¹⁴⁴ The inscriptions are given, with dashes to indicate estimates of numbers of illegible letters (and an extra dash for the initial cross if it is not visible), and missing letters are supplied by comparison with other coins from the same die, wherever possible. Many of the coins have letters that are no more than partly legible, and these letters have only been given without qualification if the interpretation of the surviving portion of the letter is beyond reasonable doubt. Reported inscriptions that have not been verified by examination of the coin or images of it are indicated by quotation marks. The entry for each coin continues with its present or last known location, and any available information on previous provenance, citing auctions by the names in the list below. The provenance is followed by references to relevant publications. *BMC* — indicates the catalogue no. of the coin in Brooke 1916, II. The weight of the coin is usually given only in grams, but if it was originally published in grains it is also listed in that form.

Abbreviations

BM	British Museum
CR	Coin Register
EMC	Corpus of Early Medieval Coin Finds
FM	Fitzwilliam Museum, Cambridge
Moscow	Rumjanceff (Pushkin) Museum, Moscow
wnr	weight not recorded

Auctions

Allen	W. Allen, Sotheby, 14 March 1898
Bartlett	B. Bartlett, John Gerard, 25 April 1787
Bergne	J.B. Bergne, Sotheby, 20 May 1873

¹⁴² Mack 1966, pp. 43, 62, 67; Mossop 1970, Pl. LXXXV, 30, Pl. LXXXVI, 4–14, Pl. LXXXVII, 15, 24.

¹⁴³ Corpus nos 101–3.

¹⁴⁴ See pp. 255–6.

Bird	Dr B. Bird, Glendining, 20 Nov. 1974
Boyne	W. Boyne, Sotheby, 21 Jan. 1896
Brettell	R.P.V. Brettell, Glendining, 28 Oct. 1970
Brumell	J. Brumell, Sotheby, 19 April 1850
Bruun	L.E. Bruun, Sotheby, 18 May 1925
Burstal	Dr E. Burstal, Glendining, 15 May 1968
Carlyon-Britton	P.W.P. Carlyon-Britton, Sotheby, 20–24 Nov. 1916 and 11–13 Nov. 1918 (two consecutively numbered sales)
Clark	H. Clark, Sotheby, 23 May 1898
Doubleday	G.V. Doubleday, Glendining, 8 June 1988
Drabble	G.C. Drabble, Glendining, 4 July 1939 and 13 Dec. 1943 (two consecutively numbered sales)
Durrant	Lt-Col. W. Durrant, Sotheby, 19 April 1847
Grantley	Lord Grantley, Glendining, 20 April 1944
Elmore Jones	F. Elmore Jones, Glendining, 13 April 1983 and 10 April 1984 (two consecutively numbered sales)
Lawrence	L.A. Lawrence, Glendining, 14 March 1951
Lestocq	H. Lestocq, Glendining, 14 Oct. 1985 ('Sussex Mints' sale)
Lockett	R.C. Lockett, Glendining, 6 June 1955, 25 Oct. 1955, 29 Feb. 1956 and 11 Oct. 1956 (four consecutively numbered sales)
Marshall	Maj. Marshall, Sotheby, 17 Dec. 1906
Montagu I	H. Montagu, Sotheby, 11 May 1896
Montagu II	H. Montagu, Sotheby, 16 Nov. 1897
Murdoch	J.G. Murdoch, Sotheby, 31 March 1903
Norweb	E.M. Norweb, Spink Sale 59, 17 June 1987
Parsons	H.A. Parsons, Glendining, 11 May 1954
Portsmouth Hill hoard	Buckland Dix & Wood, 28 June 1995, lots 171–191
Rashleigh	E.W. Rashleigh, Sotheby, 21 June 1909
Ready	W.T. Ready, Sotheby, 15 Nov. 1920
Reynolds	H.M. Reynolds, Sotheby, 5 June 1919
Roth I	B.M.S. Roth, Sotheby, 19 July 1917
Roth II	B.M.S. Roth, Sotheby, 14 Oct. 1918
Ryan	Capt. V.J.E. Ryan, Glendining, 22 Jan. 1952
Sainthill	R. Sainthill, Sotheby, 27 April 1870
Trattle	M. Trattle, Sotheby, 30 May 1832
Walters	F.A. Walters, Sotheby, 26 May 1913
Wheeler	E.H. Wheeler, Sotheby, 12 March 1930
Wicklewood hoard	Sotheby, 15 May 1990, lots 1–142
Wills	Capt. R.D. Wills, Glendining, 6 Dec. 1938

<i>Mint/moneyer</i>	<i>Dies</i>	<i>Description</i>	<i>Weight (g/gr.)</i>
Bath			
<i>Alfred</i>			
1*	BAT:1/1	Obv. +STIEFN[-] Rev. +ALVRE[---]BATH Moscow; ex Vaida hoard; Mack 1966, pl. II, 99z; Elmore Jones and Blunt 1967, no. 23; Molvögin 1994, no. 377; Molvögin and Leimus 1995, no. 379.	1.47
Bedford			
<i>Davit</i>			
2*	BED:1/1	Obv. +STIEFNE Rev. +DA[---]ONBEDE Elmore Jones, lot 1103; found Cambridge, 'recently' in 1962; Elmore Jones 1962, 71, pl. IV, 13.	1.38/21.3
3	—	Obv. ? Rev. 'DAVIT', 'EDE' Vaida hoard; Molvögin 1994, no. 378; Molvögin and Leimus 1995, no. 380.	1.34
<i>Iohan</i>			
4*	BED:2/2	Obv. [---]E[-]JNE Rev. +IOH[-]N[---]EDE Found Saxtead, Suffolk, Aug. 1997; CR 1997, no. 186; EMC 1997.0186.	1.02

<i>Mint/moneyer</i>	<i>Dies</i>	<i>Description</i>	<i>Weight (g/gr.)</i>
5*	BED:3/3	<i>Obv.</i> [-----]NE: <i>Rev.</i> +IOhA[-----]DE: Found Bottisham, Cambridgeshire, 1990; CR 2003, no. 292; EMC 2003.0099.	1.06
<i>Tomas</i> 6*	BED:4/4	<i>Obv.</i> +STIEFNE: <i>Rev.</i> +TOMAS:ON:BEDE BM; ex F. Elmore Jones; bought Spink 1971; ex N.T. Bagshawe; ex Ryan, lot 918; ex Carlyon-Britton, lot 1473.	1.41
6A*	Modern forgery	<i>Obv.</i> +STIEFNE: <i>Rev.</i> +TOMAS:ONLVNDE Said to be a 'London, Thames excavation, riverside' metal detector find, found in 1990, but actually a forgery based upon a cast of coin no. 6, with the end of the rev. inscription altered from :BEDE to LVNDE; CR 1993, no. 270; EMC 1993.0270.	wnr
7*	BED:4/5	<i>Obv.</i> +STIEF[NE:] <i>Rev.</i> +TOMAS:ON:B[-]DEF FM; ex Dr W.J. Conte; ex Wicklewood hoard, lot 132.	1.34
8	BED:4/6	<i>Obv.</i> +STIEFNE: <i>Rev.</i> +TO[MAS--:]BE]DE: BM; ex F. Elmore Jones (broken into three pieces and repaired; small piece missing).	1.20
9*	BED:4/6	<i>Obv.</i> [+ST]IEFNE: <i>Rev.</i> [+T]OMAS[--:]BEDE: Wicklewood hoard, lot 133.	1.40/21.6
<i>Uncertain moneyer</i> 10	–	<i>Obv.</i> +S[]FN[] <i>Rev.</i> []SHH:ON:BE[] Found Cottingham, East Yorkshire, April 1991; EMC 2001.1127 (no images available) (bent and broken).	wnr
Bramber			
<i>Orgar</i> 11*	BRA:1/1	<i>Obv.</i> +STIEFNE <i>Rev.</i> +ORGAR:ON:BRAN[-]: BM; ex F. Elmore Jones; ex Lockett, lot 1140; ex Drabble, lot 710; ex Wills, lot 391; ex Carlyon-Britton, lot 1470.	1.23
12	BRA:1/1	<i>Obv.</i> [+STIEF]NE <i>Rev.</i> [+]ORGAR:ON:BR[A--:] Royal Collection of Coins and Medals, National Museum of Denmark, Copenhagen; <i>SCBI</i> 18, no. 1389.	1.18
13*	BRA:2/2	<i>Obv.</i> [-]STI[---]E: <i>Rev.</i> +O[--]A[-]ON:BR[---] Ashmolean Museum; Christ Church loan; <i>SCBI</i> 12, no. 297; Elmore Jones 1955–7, pl. XXXI, 28.	1.24
<i>Willem</i> 14*	BRA:3/3	<i>Obv.</i> +STIEFNE: <i>Rev.</i> +PILLEM:ON:BRAN BM; ex W. Webster; <i>BMC</i> 181; King 1955–7, pl. II, 1; Mack 1966, pl. II, 100b.	1.39
15*	BRA:4/4	<i>Obv.</i> +STIEFNE: <i>Rev.</i> [---]LLEM[-]N:BR[--] BM; <i>BMC</i> 182.	1.45
16*	BRA:5/5	<i>Obv.</i> +[-----]NE <i>Rev.</i> +PI[-----]RAN FM; ex Dr W.J. Conte; ex Elmore Jones, lot 1395 (cracked).	1.30
17*	BRA:6/6	<i>Obv.</i> +STIEF[--] <i>Rev.</i> +PIL[-----]BRAN Found Burgh Castle, Norfolk, 1988; CR 1988, no. 230; EMC 1988.0230 (cut halfpenny).	0.52

<i>Mint/moneyer</i>	<i>Dies</i>	<i>Description</i>	<i>Weight (g/gr.)</i>
18	–	<i>Obv.</i> ? <i>Rev.</i> 'PILLEM', 'BREN' Vaida hoard; Molvögin 1994, no. 380; Molvögin and Leimus 1995, no. 382.	1.40
Buckingham			
<i>Rodbert</i>			
19*	BUC:1/1	<i>Obv.</i> +STIEFNE: <i>Rev.</i> +RODBERT:ON:BVC FM; ex Dr W.J. Conte; ex M. Paget.	1.23
Bury St Edmunds			
<i>Ace[lin]</i>			
20*	BUR:1/1	<i>Obv.</i> +STIEFNE: <i>Rev.</i> +ACE:ON:SEDMV: Dr R.J. Eaglen; ex Elmore Jones, lot 1104; Elmore Jones 1966; Elmore Jones 1975, pl. 42, A.	1.15
21	BUR:2/1	<i>Obv.</i> +STIEF[-E:] <i>Rev.</i> [+A]CE:ON:SEDM[V:] Elmore Jones 1975, pl. 42, B.	wnr
22*	BUR:2/1	<i>Obv.</i> +ST[IEF-]E: <i>Rev.</i> +ACE:ON:S[EDMV:] Dr R.J. Eaglen; ex SCMB 804 (Oct. 1985), no. E379; CR 1988, 231.	1.36
23	–	<i>Obv.</i> ? <i>Rev.</i> 'A/I', 'EDMV' Vaida hoard; Molvögin 1994, no. 381; Molvögin and Leimus 1995, no. 383.	1.42
<i>Gilebert</i>			
24*	BUR:3/2	<i>Obv.</i> +[---]FNE: <i>Rev.</i> +[-----]RT:ON:SE: Dr R.J. Eaglen; ex Portsdown Hill hoard, lot 171.	1.16
<i>Willem</i>			
25*	BUR:4/3	<i>Obv.</i> +STIEFNE: <i>Rev.</i> +P[---]JEM:ON:SE: City Museum, Dresden; Blackburn and Dolley 1982, 48–9, fig. 12.	1.44
26*	BUR:5/4	<i>Obv.</i> +STIEFNE: <i>Rev.</i> +PILLEM:ON:SE: BM; ex Wicklewood hoard.	1.37
27	BUR:5/4	<i>Obv.</i> [+STIE]FNE: <i>Rev.</i> +PIL[LEM:ON:SE]D Dr R.J. Eaglen; ex Wicklewood hoard, lot 134 (cut halfpenny).	0.62
28*	BUR:6/4	<i>Obv.</i> +S[-----] <i>Rev.</i> +PILLEM[:ON:S]ED Excavated Thetford, c.1953; Elmore Jones 1955–7, 548, pl. XXXI, 3.	wnr
Cambridge			
<i>Uncertain moneyer</i>			
29*	CAM:1/1	<i>Obv.</i> [---]IEFNE <i>Rev.</i> +[]ON:GRAN Found Swineshead, Lincolnshire, c.1986–7; CR 2001, no. 101; EMC 2001.0038; Allen 2006, no. 23 (cut halfpenny).	0.63
Canterbury			
<i>Edmond</i>			
30*	CAN:1/1	<i>Obv.</i> +STIEFNE: <i>Rev.</i> +EDMO[---]:O[-]:CA NCirc 96 (1988), no. 1174.	1.38
<i>Edward</i>			
31*	CAN:2/2	<i>Obv.</i> +ST[---]NE: <i>Rev.</i> +E[---]RD:ON:CAN: BM; ex Awbridge hoard; BMC 186.	1.26

<i>Mint/moneyer</i>	<i>Dies</i>	<i>Description</i>	<i>Weight (g/gr.)</i>
<i>Edward or Ricard?</i>			
32*	CAN:3/3	<i>Obv.</i> +STIEFNE: <i>Rev.</i> [---]ARD:ON:CAN Elmore Jones, lot 1396; ex Reynolds, lot 64A; Elmore Jones 1955–7, pl. XXXI, 4.	1.28/19.8
<i>Ricard</i>			
33*	CAN:4/4	<i>Obv.</i> +[-----] <i>Rev.</i> +RI[]:CAN: <i>Patrick Finn List 18</i> (2000), no. 104 (cut halfpenny).	0.62/9.5
<i>Rodbert</i>			
Elmore Jones recorded the moneyer Rodbert on the basis of a coin in the Ashmolean Museum (no. 37), which has been reattributed to Rogier. ¹⁴⁵ Nevertheless, Rodbert has been recorded in Henry I type 15 and Stephen types 1.2 and 6, and the coin of Rodbert M (no. 34) may imply the continued activity of another moneyer named Rodbert.			
<i>Rodbert M</i>			
34*	CAN:5/5	<i>Obv.</i> +STIEFNE: <i>Rev.</i> +RODBERT:M:[-]:CAN Moscow; ex Vaida hoard; Elmore Jones and Blunt 1967, no. 24; Molvögin 1994, no. 379; Molvögin and Leimus 1995, no. 381.	1.30
<i>Rogier</i>			
35*	CAN:6/6	<i>Obv.</i> [-]S[-----]E: <i>Rev.</i> +ROGIER[-----] BM; ex Awbridge hoard; <i>BMC</i> 187.	1.31
36*	CAN:7/7	<i>Obv.</i> +STIEFNE <i>Rev.</i> [-]OGIER:ON:CAN[-] BM; ex Awbridge hoard; <i>BMC</i> 188 (chipped).	1.12
37*	CAN:8/8	<i>Obv.</i> +STIEFNE: <i>Rev.</i> +RO[-IER:-]N:CAN: (O over R) Ashmolean Museum; ex F. Wise; <i>SCBI</i> 12, no. 294.	1.45
38	CAN:8/8	<i>Obv.</i> +ST[IEFN]E: <i>Rev.</i> +RO[-]IER:[-]N:CAN: (O over R) BM; ex Wickelwood hoard.	1.37
39*	CAN:9/9	<i>Obv.</i> +STIE[-]NE: <i>Rev.</i> +RO[-----]N:CAN: Found Bury parish, Cambridgeshire, late 1970s–1984; Blackburn and Bonser 1984, no. 1; EMC 1984.0001.	1.40
<i>Uncertain moneyer</i>			
40*	CAN:10/10	<i>Obv.</i> [---]EFNE: <i>Rev.</i> []D:O]N:CA[N][] Ashmolean Museum; ex T. Knight; <i>SCBI</i> 12, no. 295.	1.26
41*	CAN:11/10	<i>Obv.</i> +STIEFN[-] <i>Rev.</i> []D:ON:CAN[] Moscow; ex Vaida hoard; Elmore Jones and Blunt 1967, no. 25; Molvögin 1994, no. 382; Molvögin and Leimus 1995, no. 384.	1.30
42*	CAN:12/11	<i>Obv.</i> +S[-]IEF[-] <i>Rev.</i> []:ON:CAN[] Wickelwood hoard, lot 137 (part) (cut halfpenny).	0.62/9.6
<i>Castle Rising</i>			
<i>(H)un</i>			
43*	CAS:1/1	<i>Obv.</i> +STIEFNE: <i>Rev.</i> +hIVN:[-]N:RISINGE: BM; ex E.M. Beloe; ex Montagu I, lot 309; ex E.A. Tillett; found Norwich, 'a few years' before 1879; Henfrey 1879; Montagu 1889; <i>BNJ</i> 5 (1908), 438 (ill.); <i>BMC</i> 189.	1.33

¹⁴⁵ Elmore Jones 1955–7, 548.

<i>Mint/moneyer</i>	<i>Dies</i>	<i>Description</i>	<i>Weight (g/gr.)</i>
44*	CAS:2/2	<i>Obv.</i> +STIEFNE: <i>Rev.</i> +IVN:ON:RISINGES FM; ex Dr W.J. Conte; ex Spink Sale 1, 11 Oct. 1978, lot 170; ex Lockett, lot 1139; ex Roth II, lot 126; ex Rashleigh, lot 611; ex Brumell, lot 264; ex R. Miles; ex Rev R. Southgate.	1.36
45	CAS:2/2	<i>Obv.</i> [+STIEFN]E: <i>Rev.</i> +[IVN:ON:RI]SINGES BM; ex F. Elmore Jones (cracked).	1.35
46	CAS:3/3	<i>Obv.</i> +STIEFNE: <i>Rev.</i> []N:ON:RISIN[] NCirc 1993 (101), no. 152 (chipped).	1.21
47*	CAS:3/3	<i>Obv.</i> +S[T]IEFN[E]: <i>Rev.</i> []N:ON:RISIN[] Found Sibton, Suffolk, 1995; CR 1995, no. 212; EMC 1995.0212.	1.34
Colchester			
<i>Godhese</i>			
48*	COL:1/1	<i>Obv.</i> +STIEFNE <i>Rev.</i> +GODH[-----]:COL: Doubleday, lot 678; ex Lockett, lot 1141; ex Drabble, lot 712; ex Ready, lot 242 (part); Turner 1941–4, no. 202.	1.44/22.2
49*	COL:2/2	<i>Obv.</i> +STIE[-]NE: <i>Rev.</i> +GODHE[---]N[-----] St James's Auctions, 3 Oct. 2005, lot 165; found Hambledon, Hampshire, 1990; CR 1990, no. 218; EMC 1990.0218.	1.39
<i>Randulf</i>			
50	COL:3/3	<i>Obv.</i> +STIEFNE: <i>Rev.</i> +[R]ANDV[L-:]ON:CO[:] Found Wereham, Norfolk, June 1996; CR 1996, no. 304; EMC 1996.0304.	0.90
51*	COL:3/3	<i>Obv.</i> +STIEFNE: <i>Rev.</i> +RAN[D]VL[-:]ON:CO: Found Narborough, Norfolk, Jan. 1998; CR 1997, no. 187; EMC 1997.0187.	0.92
Dover			
<i>Adam</i>			
52*	DOV:1/1	<i>Obv.</i> +STIEFNE <i>Rev.</i> +ADAM:ON:DOVRE: BM; ex H.W. Sewening; ex Haapsalu hoard; BMC 190; Williams 2000, no. 23; SCBI 51, 45–6 (no. 68).	1.34
53	DOV:1/1	<i>Obv.</i> +S[T]IEFNE <i>Rev.</i> +ADAM:[O]N:DOVRE: Moscow; ex Vaida hoard; Elmore Jones and Blunt 1967, no. 26; Molvögin 1994, no. 384; Molvögin and Leimus 1995, no. 385.	1.17
54*	DOV:2/2	<i>Obv.</i> +STIEF[-] <i>Rev.</i> [-----]N:DOVRE Moscow; ex Vaida hoard; Elmore Jones and Blunt 1967, no. 27; Molvögin 1994, no. 383; Molvögin and Leimus 1995, no. 386.	1.37
55*	DOV:3/3	<i>Obv.</i> +STIE[-] <i>Rev.</i> +ADAM:ON:DO[-]RE[-] Moscow; ex Vaida hoard; Elmore Jones and Blunt 1967, no. 39; Molvögin 1994, no. 409; Molvögin and Leimus 1995, no. 415.	1.44
Dunwich			
<i>Nicole</i>			
56*	DUN:3/1	<i>Obv.</i> [-----]FN[-] <i>Rev.</i> []OL:ON:DV[] Found Thetford, Norfolk, 1988; CR 1988, no. 232; EMC 1988.0232 (cut halfpenny).	wnr

<i>Mint/moneyer</i>	<i>Dies</i>	<i>Description</i>	<i>Weight (g/gr.)</i>
57*	DUN:2/2	<i>Obv.</i> +STIE[---] <i>Rev.</i> +NICO[]N: Found near Andover, Hampshire, 13 Sept. 1998; EMC 1999.0103 (cut halfpenny).	wnr
58*	DUN:2/3	<i>Obv.</i> [-----]FNE: <i>Rev.</i> +NIC[]NE: FM: ex St James's Auctions, 3 Oct. 2005, lot 171 (part) (cut halfpenny).	0.62
59*	DUN:2/4	<i>Obv.</i> +ST[-----] <i>Rev.</i> []OLE:O[] Found Dunwich, Suffolk, 1996; EMC 1999.0088 (cut farthing).	0.25
<i>Rogier?</i> 60*	DUN:2/5	<i>Obv.</i> [-----]: <i>Rev.</i> +R[-----]:ON:DVN BM: ex Wicklewood hoard (cut halfpenny).	0.66
Exeter			
<i>Alric</i> 61*	EXE:1/1	<i>Obv.</i> +STIEFN[] <i>Rev.</i> [+ALRIC[]]ON:EXE[CES] BM: ex Montagu II, lot 117; ex Sainthill, lot 219 (part); Sainthill 1853, 158; <i>BMC</i> 191.	1.35
62*	EXE:2/1	<i>Obv.</i> +STIEFNE: <i>Rev.</i> +ALRIC[]]ON:EXE[CES] Elmore Jones, lot 1397; ex Brettell, lot 305; ex S. Simpson; Elmore Jones 1955–7, pl. XXXI, 7.	1.30/20.1
63*	EXE:3/1	<i>Obv.</i> +[-----] <i>Rev.</i> +[A]L[RIC[]]ON:EXE[CES] <i>Patrick Finn List 4</i> (Spring 1995), no. 122.	wnr
Gloucester			
<i>Ra(w)ulf</i> 64*	GLO:1/1	<i>Obv.</i> +STIEFNE: <i>Rev.</i> [---]LF:ON:GLOVC[] BM: ex B.C. Roberts; ex I.A. Rebello; <i>BMC</i> 192.	1.43
65*	GLO:2/2	<i>Obv.</i> +STIEFNE: <i>Rev.</i> +RAPLF:ON[]]OVEC: FM: ex Dr W.J. Conte; bought P. Finn 1995.	1.42
66	—	<i>Obv.</i> ? <i>Rev.</i> 'RAVLF', '//O/EL' Vaida hoard; Molvögin 1994, no. 385; Molvögin and Leimus 1995, no. 388.	1.40
<i>Willem</i> 67*	GLO:2/3	<i>Obv.</i> +STIEFNE: <i>Rev.</i> +PILL[EM:--]:GLOECE BM: ex Colchester (1902) hoard; <i>BMC</i> 193.	1.26
68	GLO:2/3	<i>Obv.</i> +STIEFNE: <i>Rev.</i> +PILLEM[]]GLOECJE Royal Collection of Coins and Medals; National Museum of Denmark, Copenhagen; <i>SCBI</i> 18, no. 1405.	1.40
69*	GLO:3/3	<i>Obv.</i> +STIEFNE: <i>Rev.</i> +PIL[LEM:--]:GLOECE National Museum of Wales; ex Elmore Jones, lot 1398; ex Wills, lot 411 (part); ex Carlyon-Britton, lot 1475; ex Capt. R.J.H. Douglas.	1.32/20.4
<i>Uncertain moneyer</i> 70	—	<i>Obv.</i> ? <i>Rev.</i> 'GLO' Vaida hoard; Molvögin 1994, no. 386; Molvögin and Leimus 1995, no. 387.	1.40

<i>Mint/moneyer</i>	<i>Dies</i>	<i>Description</i>	<i>Weight (g/gr.)</i>
Hastings			
<i>Rodbert</i>			
71*	HAS:-/1	<i>Obv.</i> +STIEFNE: (type 6) <i>Rev.</i> [---]DBERT:ON:hAST Moscow; ex Vaida hoard; Mack 1966, pl. III, 99y; Elmore Jones and Blunt 1967, no. 22; Molvögin 1994, no. 387; Molvögin and Leimus 1995, no. 378.	1.40
72*	HAS:1/2	<i>Obv.</i> +STIEFNE: <i>Rev.</i> +RODBERT:ON:hAS: BM; ex H.H. King; ex Bruun, lot 227 (part); King 1955-7, pl. XXI, 41.	1.29
Hedon			
<i>Gerard</i>			
73*	HED:1/1	<i>Obv.</i> +STIEFN[E]: <i>Rev.</i> +G[-]RA[-]D:ON:hED[-]N Hunterian Museum; <i>SCBI</i> 53, no. 326; Elmore Jones 1955-7, pl. XXXI, 9.	1.36
74*	HED:1/2	<i>Obv.</i> +STIEFNE: <i>Rev.</i> +GERARD:ON:hEDVN [N reversed] FM; ex Dr W.J. Conte; bought Baldwin 1988; Elmore Jones 1955-7, pl. XXXI, 8.	1.45
75	HED:1/2	<i>Obv.</i> +STIEF[N]E: <i>Rev.</i> +GERARD:[O]N:hEDVN [N reversed] Hedon Town Council; ex E.F. Winkler; ex Portsdown Hill hoard, lot 172 (cracked).	1.36/21.0
Hereford			
<i>Driu</i>			
76*	HER:1/1	<i>Obv.</i> +STIEFNE: <i>Rev.</i> +DRIV:ON:h[ERE]FOR: BM; ex Sir Hans Sloane; <i>BMC</i> 214; Sharp 1869, 357, no. 11; Carson 1949, no. 8; Carson 1955, 243-4, fig. 2; Mack 1966, pl. II, 111.	1.32
77	HER:1/1	<i>Obv.</i> +STIEFNE: <i>Rev.</i> +DRIV:ON:h[ERE]FOR: Archbishop John Sharp; Carson 1955, 243-4, fig. 1.	wnr
78*	HER:2/2	<i>Obv.</i> [-]STIEFN[-] <i>Rev.</i> +DRIV[-----]F[-] F. Rist (cut halfpenny).	0.76
<i>Saric</i>			
79	HER:3/3	<i>Obv.</i> +STIEFNE: <i>Rev.</i> [+SAR---]N:h[ERE] Moscow; ex Vaida hoard; Elmore Jones and Blunt 1967, no. 28; Molvögin 1994, no. ?; Molvögin and Leimus 1995, no. 389.	1.40/21.6
80*	HER:3/3	<i>Obv.</i> +STIEFNE: <i>Rev.</i> +SAR[---](N:h[ERE] Portsdown Hill hoard, lot 175.	1.37/21.2
Huntingdon			
<i>Godmer</i>			
81*	HUN:1/1	<i>Obv.</i> +STIEFNE: <i>Rev.</i> +GODMER:ON:hVN: BM; ex Montagu I, lot 307; ex W. Brice; ex Bergne, lot 330; <i>BMC</i> 194; Eaglen 1999, no. 325.	1.47
82*	HUN:2/2	<i>Obv.</i> +ST[I]([---]E: <i>Rev.</i> +GO[D---O]N:hV[-]T Dr R.J. Eaglen; ex Elmore Jones, lot 1105; ex Carlyon Britton, lot 1471 (part); ex Awbridge hoard; Eaglen 1999, no. 326(1).	1.51
83	HUN:2/2	<i>Obv.</i> +ST[I]([---]E: <i>Rev.</i> +GOD[---O]N:hV[-]T Moscow; ex Vaida hoard; Elmore Jones and Blunt 1967, no. 29; Molvögin 1994, no. 425 or 426; Molvögin and Leimus 1995, no. 390; Eaglen 1999, no. 326(2).	1.36

272		THE ENGLISH COINAGE OF 1153/4–1158	
<i>Mint/moneyer</i>	<i>Dies</i>	<i>Description</i>	<i>Weight (g/gr.)</i>
<i>Walteir</i>			
84	HUN:3/3	<i>Obv.</i> +[S]TIE[-]NE: <i>Rev.</i> +WALTEIR:ON:hVN Dr R.J. Eaglen; ex Elmore Jones, lot 1399; ex Drabble, lot 995; Eaglen 1999, no. 327(1).	1.20
85*	HUN:3/3	<i>Obv.</i> +STI[E-]NE: <i>Rev.</i> +WALTEIR:[O]N:hVN BM; ex Lockett, lot 2963; Mack 1966, pl. II, 112B; Eaglen 1999, no. 327(2).	1.17
Huntingdon?			
<i>Uncertain moneyer</i>			
86	—	<i>Obv.</i> +STIEFNE: <i>Rev.</i> +DELING:ON:hVN Shown at the BM, 1995; double-struck; reverse reading doubtful; Eaglen 1999, 144.	wnt
Ilchester			
<i>Uncertain moneyer</i>			
87*	ILC:1/1	<i>Obv.</i> +ST[----]E: <i>Rev.</i> +[R or D?][---]:ON:IVE[--]: BM; ex Elmore Jones, lot 1106; ex N.C. Ballingal; ex Parsons, lot 256; ex Drabble, lot 713 (part); ex P.W.P. Carlyon-Britton; ex Awbridge hoard; Elmore Jones 1962, p. 71 and pl. IV, 14.	1.11
Ipswich			
<i>Davit</i>			
88	IPS:1/1	<i>Obv.</i> +STIEFNE: <i>Rev.</i> [+]DAVIT:ON:GIPE[:] BM; bought D.J. Crowther 1968; ex Vaida hoard; Bryant 1968; Elmore Jones 1969; Molvögin 1994, no. 389; Molvögin and Leimus 1995, no. 391.	1.47
89*	IPS:1/1	<i>Obv.</i> [+S]TIEFNE: <i>Rev.</i> +DAVI[T:]ON:GIPE: FM; ex Dr W.J. Conte; ex Elmore Jones, lot 1400; Elmore Jones 1955–7, pl. XXXI, 10; Elmore Jones 1969.	1.38
90	IPS:1/1	<i>Obv.</i> +STIEFNE: <i>Rev.</i> [+D]AVIT:ON:G[IPE:] Found near Portsmouth, 8 Feb. 1997 (stray from Portsdown Hill hoard?); EMC 1999.0136.	wnt
91	—	<i>Obv.</i> ? <i>Rev.</i> *DA//', *GIP/ Vaida hoard; Molvögin 1994, no. 390; Molvögin and Leimus 1995, no. 392.	1.44
<i>Rodbert</i>			
92*	IPS:2/2	<i>Obv.</i> +STIEFNE: <i>Rev.</i> +RO[---]E[---]N:GIPES Hunterian Museum; SCBI 53, no. 327; Elmore Jones 1955–7, pl. XXXI, 1; Mack 1966, pl. II, T1.	1.39
93*	IPS:2/3	<i>Obv.</i> [+STIEFNE[:] <i>Rev.</i> [---]BERT:ON:[C?][--] BM; ex Awbridge hoard; BMC 185; Elmore Jones 1945–8b; Elmore Jones 1955–7, pl. XXXI, 2; Mack 1966, pl. II, T2.	1.41
94*	IPS:3/2	<i>Obv.</i> [-----] <i>Rev.</i> +[RO-E---]N:GIPES BM; ex Wicklewood hoard (cut halfpenny).	0.61
95*	IPS:4/4	<i>Obv.</i> +ST[-----] <i>Rev.</i> +R[-----]N:GI[-]JEVI St James's Auctions, 3 Oct. 2005, lot 163 (cracked and chipped).	1.28

<i>Mint/moneyer</i>	<i>Dies</i>	<i>Description</i>	<i>Weight (g/gr.)</i>
<i>Uncertain moneyer</i>			
96*	IPS:5/5	<i>Obv.</i> +STIEFNE: <i>Rev.</i> [----]D:ON:CIPEP: Royal Collection of Coins and Medals, National Museum of Denmark, Copenhagen; <i>SCBI</i> 18, no. 1390; Elmore Jones 1955–7, pl. XXXI, 25.	1.46
Leicester			
<i>Simon</i>			
97*	LEI:1/1	<i>Obv.</i> +STIEFNE: <i>Rev.</i> +SIMON:O[]LEHER: FM; ex Dr W.J. Conte; bought Baldwin 1996.	1.20
Lewes			
<i>Hunfrei</i>			
98*	LEW:1/1	<i>Obv.</i> [---]IEFNE: <i>Rev.</i> +hV[---]E:ON:LEV: (LEV over NOR?) BM; ex Awbridge hoard; <i>BMC</i> 195; King 1955–7, pl. XXX, 54.	1.34
99*	LEW:2/2	<i>Obv.</i> [+S]TIEFNE: <i>Rev.</i> +hVNF[---]:ON:LEVE BM; bought Baldwin 1927.	1.25
100	LEW:2/2	<i>Obv.</i> +S[T]IE[FN]E: <i>Rev.</i> +hVN[F---]:ON:[L]EVE FM; ex Dr W.J. Conte; ex Lestocq, lot 184; ex Elmore Jones, lot 1107; ex Lockett, lot 1142; ex Roth II, lot 135 (part); Mack 1966, pl. II, 115.	1.42
Lincoln			
<i>Gurth</i>			
101*	LIN:1/1	<i>Obv.</i> +STIEF[]E <i>Rev.</i> [+]GVRTh:ON:LINC (I and N ligated as N) Lord Stewartby.	1.48
102	LIN:1/1	<i>Obv.</i> +ST[IEF-E] <i>Rev.</i> +GVR[Th:ON:L]INC (I and N ligated as N) A. Dawson (cut halfpenny).	0.65
103*	LIN:2/2	<i>Obv.</i> +[----]NE: <i>Rev.</i> +G[-----]LIN[]O: BM; ex Glendinning, 21 Sept. 1983, lot 101; Elmore Jones 1955–7, pl. XXXI, 11; Mossop 1970, pl. LXXXVII, 19 (dies Aa).	1.26
<i>Hue</i>			
104*	LIN:3/3	<i>Obv.</i> [+STI]EFNE: <i>Rev.</i> +hVE[:ON:--N]CO: Lincoln City and County Museum; ex Sir Francis Hill; ex Lockett, lot 1143; ex Roth I, lot 129; <i>SCBI</i> 27, no. 954; Mack 1966, pl. II, 116a; Mossop 1970, pl. LXXXVII, 18 (dies Aa).	1.34
105	LIN:3/3	<i>Obv.</i> [+S]TIEFNE: <i>Rev.</i> +hVE[:ON:--N]CO: BM; ex Wicklewold hoard.	1.44
106	LIN:3/3	<i>Obv.</i> +STIEFN[E:] <i>Rev.</i> +hVE[:ON:--N]CO: <i>Patrick Finn List</i> 7 (1996), no. 131.	wnr
107	LIN:3/3	<i>Obv.</i> +STIE[FNE:] <i>Rev.</i> +hVE:ON[]NCO: Found Calne, Wiltshire, Oct. 1996; EMC 1999.0126 (cut halfpenny).	wnr
108*	LIN:3/4	<i>Obv.</i> [---]E[---] <i>Rev.</i> +hVE[]ICOL FM; found Brandon, Suffolk, 1994; CR 1994, no. 286; EMC 1994.0286 (cut halfpenny, cracked and chipped).	0.58
<i>Paen</i>			
109	LIN:4/5	<i>Obv.</i> +STIEENE: <i>Rev.</i> +PAEN:ON[]LIN[C]O: BM; ex Awbridge hoard; <i>BMC</i> 204; Wells 1929–30, pl. VI, 21; Elmore Jones 1970, fig. 1; Mossop 1970, pl. LXXXVII, 20–21 (dies Aa; not illustrated) (chipped).	1.41

<i>Mint/moneyer</i>	<i>Dies</i>	<i>Description</i>	<i>Weight (g/gr.)</i>
110	LIN:4/5	<i>Obv.</i> +STIEENE: <i>Rev.</i> +PAEN:ON[LI]NCO: FM; ex J.S. Henderson; ex Clark, lot 68; ex S. Rostron; ex Capt. R.M. Murchison; Brooke 1916, I, ccxix; Elmore Jones 1955–7, pl. XXXI, 12; Elmore Jones 1970, fig. 2; Mossop 1970, pl. LXXXVII, 20 (dies Aa).	1.45
111*	LIN:4/5	<i>Obv.</i> +STIEENE: <i>Rev.</i> [+PAEN:O]N[LINCO]: FM; Trinity College loan; ex Beaupré Bell; Mossop 1970, pl. LXXXVII, 21 (dies Aa).	1.18
112	LIN:4/5	<i>Obv.</i> [+ST]IEENE: <i>Rev.</i> [+P]AEN:ON[LI]NCO]: St James's Auctions, 3 Oct. 2005, lot 164; ex Elmore Jones, lot 1401; Mossop 1970, pl. LXXXVII, 20–21 (dies Aa; not illustrated).	1.28
<i>Uncertain moneyer</i>			
113*	LIN:2/6	<i>Obv.</i> [----]FN[]: <i>Rev.</i> []LIN[]: Found Roudham, Norfolk, 1996; CR 1996, no. 308; EMC 1996.0308 (cut halfpenny).	0.61
London			
<i>Adam</i>			
114*	LON:1/1	<i>Obv.</i> +STI[---]E: <i>Rev.</i> [--]DAM:ON[LVN--]: BM; ex F. Elmore Jones; ex Wills, lot 406 (part); Elmore Jones 1955–7, pl. XXXI, 13.	1.35
115*	LON:2/1	<i>Obv.</i> [+STI[-]FN[E]: <i>Rev.</i> [--DAM:]ON[LVN[---]]: BM; ex J. Edwards; BMC 203.	1.37
116*	LON:2/2	<i>Obv.</i> +ST[I-F]NE: <i>Rev.</i> [-]ADAM:ON[LVN[---]]: SCMB 736 (Dec. 1979), no. E586; ex Spink Sale 6, 10 Oct. 1979, lot 517.	1.41/21.8
<i>Alisand(re/er)</i>			
117*	LON:3/3	<i>Obv.</i> +STIE[-]NE: <i>Rev.</i> +ALISANDRE:ON[LV] BM; ex P. Whelan; BMC 196.	1.24
118*	LON:4/4	<i>Obv.</i> [-----]NE: <i>Rev.</i> +ALISAND[-----] BM; ex Awbridge hoard; BMC 197.	1.27
119*	LON:5/5	<i>Obv.</i> +ST[IEFN]E: <i>Rev.</i> +ALISANDRE:[----] BM; ex B.C. Roberts; BMC 198.	1.48
120*	LON:5/6	<i>Obv.</i> +STIEFNE: <i>Rev.</i> +ALISANDR:[-:]NLV Hunterian Museum; SCBI 53, no. 328.	1.47
121*	LON:6/6	<i>Obv.</i> +STIEFNE: <i>Rev.</i> +ALI[SANDR:-:]ONLV Baldwin's Auction 40, 3 May 2005, lot 143.	1.45
122*	LON:7/7	<i>Obv.</i> +[----]EFNE <i>Rev.</i> +ALISANDR[-----]E: Royal Collection of Coins and Medals, National Museum of Denmark, Copenhagen; SCBI 18, no. 1400; Elmore Jones 1955–7, pl. XXXI, 6.	1.01
123*	LON:8/8	<i>Obv.</i> [--]TIEFN[]: <i>Rev.</i> []ANDER[]N[]: BM; bought Baldwin 1927; Elmore Jones 1955–7, pl. XXXI, 5.	1.15
124*	LON:9/9	<i>Obv.</i> +STIE[---] <i>Rev.</i> +ALISA[---]E:ONLV Wicklewood hoard, lot 135.	1.36/21.0

<i>Mint/moneyer</i>	<i>Dies</i>	<i>Description</i>	<i>Weight (g/gr.)</i>
125*	LON:10/10	<i>Obv.</i> [---]TIEFNE: <i>Rev.</i> [-]ALIS[---]ER:ONL[-] Hampshire County Council Museums & Archives Service; ex Portsdown Hill hoard, lot 176.	1.15/17.7
<i>Dereman</i> 126*	LON:11/11	<i>Obv.</i> +STIEFNE <i>Rev.</i> +[-]ERE[-]AN:ON[-] BM; ex Awbridge hoard; <i>BMC</i> 199.	1.34
<i>G[---]sebi</i> 127*	LON:12/12	<i>Obv.</i> +STIEFNE: <i>Rev.</i> +G[---]ASEBI:ONVND[---] John Dresser; ex Grantley, lot 1300; ex Reynolds, lot 62; <i>SCBI</i> 30, no. 784.	1.40
<i>Geffrei</i> 128	LON:13/13	<i>Obv.</i> +STIEFNE: <i>Rev.</i> +GEFFREI:ON[LV]ND BM; ex Awbridge hoard; <i>BMC</i> 200.	1.26
129*	LON:13/13	<i>Obv.</i> +STIEFNE: <i>Rev.</i> [+]GEFF[RE]I:ONL[VND] Moscow; ex Vaida hoard; Elmore Jones and Blunt 1967, no. 30; Molvögin 1994, no. 393; Molvögin and Leimus 1995, no. 393.	1.37
130*	LON:14/14	<i>Obv.</i> +S[----]NE: <i>Rev.</i> +GEFF[----]LVN: Lincoln City and County Museum; <i>SCBI</i> 27, no. 1797.	1.12
131*	LON:15/15	<i>Obv.</i> +ST[-]E[-]E: <i>Rev.</i> +[---]FREI:ONLVN Moscow; ex Vaida hoard; Elmore Jones and Blunt 1967, no. 31; Molvögin 1994, no. 391; Molvögin and Leimus 1995, no. 394.	1.45
132*	LON:16/16	<i>Obv.</i> +ST[-]EF[-]E: <i>Rev.</i> +GEFFREI:ONL[---] Moscow; ex Vaida hoard; Elmore Jones and Blunt 1967, no. 32; Molvögin 1994, no. 392; Molvögin and Leimus 1995, no. 395.	1.45
133*	LON:17/17	<i>Obv.</i> [---]IEF[---] <i>Rev.</i> +GE[---]EI[---]N Found near Immingham, Lincolnshire, 1985–6; Blackburn and Bonser 1986, no. 107; EMC 1986.0107.	wnt
134*	LON:18/18	<i>Obv.</i> +STIEF[---] <i>Rev.</i> +GE[---]R[-]ONL[---] <i>SCMB</i> 698 (Oct. 1976), no. E252.	wnt
135	—	<i>Obv.</i> ? <i>Rev.</i> ? Sotheby, 9 Oct. 1995, lot 881b (not illustrated); found near Rochester, Kent, 1989.	wnt
<i>Raulf</i> 136*	LON:19/19	<i>Obv.</i> +STIEFNE: <i>Rev.</i> +RAVL[-]N:LVN: BM; ex J. Edwards; ex S. Tyssen; <i>BMC</i> 201.	1.28
<i>Ricard</i> 137*	LON:20/20	<i>Obv.</i> +STI[---]E: <i>Rev.</i> [---]IC[-]RD:ONLVN: R.P. Mack; ex Walters, lot 72; <i>SCBI</i> 20, no. 1621.	1.40
138*	LON:21/21	<i>Obv.</i> +STIEFNE: <i>Rev.</i> +RICRD[-]N:LVNDE Hunterian Museum; ex Carlyon-Britton, lot 1472; <i>SCBI</i> 53, no. 329.	1.36
<i>Ricard R</i> 139*	LON:22/22	<i>Obv.</i> +STIEFNE: <i>Rev.</i> +RIC[---]D:R:O[-----] BM; ex F. Elmore Jones.	1.34
<i>Ricard S</i> 140*	LON:23/23	<i>Obv.</i> +[-----]NE: <i>Rev.</i> [---]ARD:S:ONLVN Lord Stewartby; ex Portsdown Hill hoard, lot 177.	1.40

<i>Mint/moneyer</i>	<i>Dies</i>	<i>Description</i>	<i>Weight (g/gr.)</i>
<i>Rodbert</i>			
141*	LON:24/24	<i>Obv.</i> +STIEFNE: <i>Rev.</i> +RODBERT:ON:LVN: BM; ex Awbridge hoard; <i>BMC</i> 184.	1.08
142	LON:24/24	<i>Obv.</i> [+STIEFN]E: <i>Rev.</i> +RO[DBER]T:ON:LVN: R.P. Mack; <i>SCBI</i> 20, no. 1622.	1.22
143*	LON:24/25	<i>Obv.</i> +STIEFNE: <i>Rev.</i> +R[---]BERTON:LVND: BM; ex Awbridge hoard; <i>BMC</i> 202 (chipped).	1.01
144*	LON:25/26	<i>Obv.</i> +ST[---]E: <i>Rev.</i> +RODBE[---]LVN: St James's Auctions, 3 Oct. 2005, lot 166; ex Glendining, 21 Sept. 1983, lot 102; ex Carlyon-Britton, lot 1970.	1.36
145*	LON:26/27	<i>Obv.</i> +[---]IEFNE: <i>Rev.</i> +RODBER[---]ON:LVN: Moscow; ex Vaida hoard; Elmore Jones and Blunt 1967, no. 33; Molvögin 1994, no. 394; Molvögin and Leimus 1995, no. 396.	1.34
146	—	<i>Obv.</i> ? <i>Rev.</i> 'H///T', 'LVN' Vaida hoard; Molvögin 1994, no. 395; Molvögin and Leimus 1995, no. 397.	1.23
<i>Roger</i>			
147*	LON:~/28	<i>Obv.</i> [---]TIEFNE: <i>Rev.</i> +ROGE[---]VN BM; ex Wicklewood hoard.	1.42
<i>Terri D</i>			
148*	LON:27/29	<i>Obv.</i> +S[-----]: <i>Rev.</i> +[---]RRI:D:ON:LVN[---] BM; ex F. Elmore Jones.	1.36
149*	LON:28/30	<i>Obv.</i> [+S--EFN]E: <i>Rev.</i> +TERRI:D:[-----] A.H.F. Baldwin; Elmore Jones 1955–7, pl. XXXI, 14.	wnr
150	LON:28/31	<i>Obv.</i> +S[--EFN]E: <i>Rev.</i> +TER[---]D:N:LV]ND: Royal Collection of Coins and Medals, National Museum of Denmark, Copenhagen; <i>SCBI</i> 18, no. 1401.	1.29
151*	LON:28/31	<i>Obv.</i> +S[---]EFNE: <i>Rev.</i> +T[ER--]:D[---]N:LVND: <i>Patrick Finn List</i> 13 (1998), no. 98.	1.39/21.5
152*	LON:29/32	<i>Obv.</i> [---]IEFN[---]: <i>Rev.</i> [---]D:ON[---] Wicklewood hoard, lot 136.	1.17/18.1
153*	LON:30/33	<i>Obv.</i> +STIEFNE: <i>Rev.</i> [---]RRI:ON:LVN[---] Northampton Central Museum and Art Gallery; found Great Houghton, Northamptonshire, 1967; <i>SCBI</i> 17, no. 714.	1.30
<i>Tomas</i>			
See no. 6A.			
<i>Wulwin</i>			
154*	LON:31/36	<i>Obv.</i> +STIEFN[---]: <i>Rev.</i> +PV[---]:ON:L[---]N Ashmolean Museum; ex B. Willis; <i>SCBI</i> 12, no. 296.	1.31
155*	LON:32/34	<i>Obv.</i> +STIEFNE: (I and E ligated as N) <i>Rev.</i> +PVP[-----]LVN BM; ex Lockett, lot 1144.	1.32
156*	LON:32/35	<i>Obv.</i> +STIEF[NE:] (I and E ligated as N) <i>Rev.</i> [---]VLPIN:O[-----] BM; ex Wicklewood hoard (bent and cracked).	1.43

<i>Mint/moneyer</i>	<i>Dies</i>	<i>Description</i>	<i>Weight (g/gr.)</i>
<i>Uncertain moneyer</i>			
157*	LON:33/37	<i>Obv.</i> +STIEF[-] <i>Rev.</i> [][-]LV[] Wicklewood hoard, lot 137 (part).	1.45/22.4
158	—	<i>Obv.</i> ? <i>Rev.</i> 'H///L', 'LV//' Vaida hoard; Molvögin 1994, no. 396; Molvögin and Leimus 1995, no. 398.	1.49
Northampton			
<i>Paen</i>			
159*	NORT:1/1	<i>Obv.</i> +[---]EFNE: <i>Rev.</i> +[-]AEN[----]hA BM; ex F. Elmore Jones; Elmore Jones 1970, fig. 3 (chipped).	1.20
Norwich			
<i>Al(flv)ric(h)</i>			
160	NORW:1/1	<i>Obv.</i> +STIEFNE: <i>Rev.</i> +ALFRI[Ch:]ON:NOR BM; ex B.C. Roberts; ex I.A. Rebello; ex S. Tyssen; ex E. Hodsoll; ex Bartlett, 6th day, lot 16; BMC 205.	1.44
161	NORW:1/1	<i>Obv.</i> +STIEFNE: <i>Rev.</i> [+AL]FRICH:ON:N[OR] Norwich Castle Museum and Art Gallery; ex H.M. Reynolds; ex Rashleigh, lot 544 (part); SCBI 26, no. 1462.	1.39
162*	NORW:1/1	<i>Obv.</i> +STIEFNE[?] <i>Rev.</i> +ALFRICH:ON:NOR BM; ex Wicklewood hoard.	1.46
163	NORW:1/1	<i>Obv.</i> +STIEFNE: <i>Rev.</i> +ALFRICH[ON:NO]R BM; ex Wicklewood hoard.	1.44
164	NORW:1/1	<i>Obv.</i> [+S]TIEF[N]E: <i>Rev.</i> [+A]LFRICH:ON[NOR] BM; ex Wicklewood hoard (clipped).	1.25
165	NORW:1/1	<i>Obv.</i> +STIEFNE: <i>Rev.</i> [+AL]FRICH:ON:N[OR] Wicklewood hoard, lot 138.	1.45/22.4
166	NORW:1/1	<i>Obv.</i> +STIEFNE: <i>Rev.</i> +[ALFRICH:]ON:NOR Wicklewood hoard, lot 139 (part).	1.22/18.8
167*	NORW:2/2	<i>Obv.</i> [-]S[----]E: <i>Rev.</i> +[-]FRICH:ON[---] Hampshire County Council Museums & Archives Service; ex Portsdown Hill hoard, lot 179.	1.13/17.5
168	NORW:3/3	<i>Obv.</i> +STIEFNE: <i>Rev.</i> +ALVR[IC:ON]:NOR: Elmore Jones, lot 1108; Elmore Jones 1962, 71 and pl. IV, 15.	1.16/17.9
169*	NORW:3/3	<i>Obv.</i> +[T]IEFN[E]: <i>Rev.</i> +[A]LVRIC:ON:NOR: St James's Auctions, 3 Oct. 2005, lot 167.	1.39
<i>Davi</i>			
170*	NORW:4/4	<i>Obv.</i> +STIEFN[-] <i>Rev.</i> +DAVI:ON[----]IC: BM; ex Sir Hans Sloane; BMC 222; Elmore Jones 1955–7, pl. XXXI, 15 (clipped).	1.16
171	—	<i>Obv.</i> ? <i>Rev.</i> 'DAV//', 'NON' Vaida hoard; Molvögin 1994, no. 411; Molvögin and Leimus 1995, no. 401.	1.42
<i>Hildebran</i>			
172*	NORW:5/5	<i>Obv.</i> [+ST]IEFNE: <i>Rev.</i> +hILDE[BRAN]ONNOR BM; ex Sir Hans Sloane; BMC 206.	1.45

<i>Mint/moneyer</i>	<i>Dies</i>	<i>Description</i>	<i>Weight (g/gr.)</i>
173	NORW:5/5	<i>Obv.</i> [+STI]EFNE: <i>Rev.</i> +hIL[DEB]RANONNOR FM; ex Dr W.J. Conte; ex Wicklewood hoard, lot 140.	1.46
174	NORW:5/5	<i>Obv.</i> +STIEFNE: <i>Rev.</i> +hILDE[BR]ANONNOR Found Boxley, Kent, Oct. 1995; CR 1996, no. 305; EMC 1996.0305.	1.40
175	NORW:5/5	<i>Obv.</i> +STI[EFN]E: <i>Rev.</i> [+hI]LDEB[RANONNOR] Found Norfolk, 1991; CR 1993, no. 271; EMC 1993.0271.	1.27
176*	NORW:6/6	<i>Obv.</i> +STIEF[-]E: <i>Rev.</i> +hL[]ONN+R (double-struck) BM; ex Wicklewood hoard.	1.43
177	—	<i>Obv.</i> ? <i>Rev.</i> *HILBER// Vaida hoard; Molvögin 1994, no. 413; Molvögin and Leimus 1995, no. 402.	1.11
<i>Jocelin</i> 178*	NORW:7/7	<i>Obv.</i> +S[----]NE: <i>Rev.</i> +I[-]CELIN:ON:N[---] Lord Stewarthby.	1.28
<i>Ra(nd)ulf</i> 179*	NORW:8/8	<i>Obv.</i> +STIEFNE: <i>Rev.</i> +RAVL:ON:NORP: Hunterian Museum; <i>SCBI</i> 53, no. 330; Elmore Jones 1955–7, pl. XXXI, 16.	1.42
180*	NORW:9/9	<i>Obv.</i> +STIEFNE: <i>Rev.</i> +R[-----]N:NOR R.P. Mack; ex Parsons, lot 257; <i>SCBI</i> 20, no. 1623.	1.43
181*	NORW:10/10	<i>Obv.</i> [----]EFNE: <i>Rev.</i> +RANDV[-----]R Found Suffolk, 1991; CR 1993, no. 273; EMC 1993.0273 (cut halfpenny).	0.68
<i>Rogier</i> 182*	NORW:11/11	<i>Obv.</i> [+ST]IEFNE: <i>Rev.</i> [+R]OGIER:[O--]OREVI[-] Found Godstone, Surrey, in or before 1999; CR 2000, no. 131; EMC 2003.0129 (chipped).	1.23
183	NORW:11/11	<i>Obv.</i> +ST[IEFNE:] <i>Rev.</i> +ROGIER:O[---]OREVI-] Museum of London; excavated Billingsgate Lorry Park, 1982; Stott 1991, no. 161; EMC 1991.0333 (cut halfpenny).	0.57
<i>Thor</i> 184*	NORW:12/12	<i>Obv.</i> +STIEFNE: <i>Rev.</i> +ThOR:ON:NORVI: BM; ex B.C. Roberts; ex S. Tyssen; <i>BMC</i> 207.	1.42
185	NORW:12/12	<i>Obv.</i> +STIEFNE: <i>Rev.</i> [+T]hOR:ON:NOR[VI:] FM; ex J.S. Henderson.	1.48
186	NORW:12/12	<i>Obv.</i> +STIEFNE: <i>Rev.</i> +T[hOR:]ON:NOR[V]I: Wicklewood hoard, lot 139 (part).	1.43/22.1
187	NORW:12/12	<i>Obv.</i> +STIEFNE: <i>Rev.</i> +ThOR:ON:NOR[V]I: Wicklewood hoard, lot 141.	1.43/22.1
188	NORW:12/12	<i>Obv.</i> +STIEFNE: <i>Rev.</i> +ThOR:[ON:NOR]VI: Wicklewood hoard, lot 142 (part) (bent double).	1.47/22.7
189	NORW:12/12	<i>Obv.</i> +S[TIEF]NE: <i>Rev.</i> +T[hOR:]ON:NORVI: Found Wicklewood, Norfolk, 1993 (stray from Wicklewood hoard?); CR 2003, no. 293; EMC 2003.0243.	1.37
190	NORW:12/12	<i>Obv.</i> +STIEFNE: <i>Rev.</i> [+T]hOR:ON:NORVI: Found Tharston, Norfolk, Jan. 2005; EMC 2005.0157.	1.38

<i>Mint/moneyer</i>	<i>Dies</i>	<i>Description</i>	<i>Weight (g/gr.)</i>
191	NORW:12/12	<i>Obv.</i> +[STIEFN]E: <i>Rev.</i> +ThOR:ON[NORVI]: Elmore Jones, lot 1402; ex Carlyon-Britton, lot 1474 (part).	1.43/22.0
192	NORW:12/12	<i>Obv.</i> +[STIEFN]E: <i>Rev.</i> +ThOR[:ON:NO]RVI: St James's Auctions, 3 Oct. 2005, lot 168.	1.33
193	—	<i>Obv.</i> ? <i>Rev.</i> 'ThOR', 'NORDI' Vaida hoard; Molvögin 1994, no. 397; Molvögin and Leimus 1995, no. 399.	1.27
<i>Willem</i> 194*	NORW:13/13	<i>Obv.</i> +[STIEFNE]: <i>Rev.</i> +PILLEM:ON:NOR: Moscow; ex Vaida hoard; Elmore Jones and Blunt 1967, no. 34; Molvögin 1994, no. 398; Molvögin and Leimus 1995, no. 400.	1.47
195	NORW:13/13	<i>Obv.</i> +[STIEFNE]: <i>Rev.</i> +[P]ILL[EM:ON:N]OR: Found Colkirk, Norfolk, in or before 2002; CR 2002, no. 225; EMC 2002.0168 (cut halfpenny).	wnr
196	NORW:14/13	<i>Obv.</i> +[STIEFNE]: <i>Rev.</i> +PILLEM:ON:NOR: Norwich Castle Museum and Art Gallery; ex H.M. Reynolds; ex Wheeler, lot 182; ex Roth I, lot 132; ex Marsham, lot 260; ex Montagu I, lot 308; ex Trattle, lot 169; SCBI 26, no. 1463.	1.45
197*	NORW:14/13	<i>Obv.</i> +[S]TIEFNE: <i>Rev.</i> +PILLEM:ON[:N]OR: Lockett, lot 3943; Mack 1966, pl. II, 118f.	wnr
198*	NORW:14/14	<i>Obv.</i> +[STIEFNE]: <i>Rev.</i> +PIL[LE]M:ON[:N]OR[-F] (double-struck) BM; ex F. Elmore Jones.	1.39
199*	NORW:14/15	<i>Obv.</i> +[STIEFNE]: <i>Rev.</i> [-]GILL[---]ON[---]R: Glendining, 21 Sept. 1983, lot 103; ex Drabble, lot 996.	1.39/21.4
200*	NORW:15/14	<i>Obv.</i> +[STIEFNE]: <i>Rev.</i> +P[IL]LEM[:ON:]NOR[-]F Classical Numismatic Group Auction 70, 21 Sept. 2005, lot 1258; ex <i>NCirc</i> 102 (1994), no. 2155.	1.31
201*	NORW:16/14	<i>Obv.</i> +[---]EFNE: <i>Rev.</i> [+PILLE]M:ON:NOR[-F] Found Kenninghall, Norfolk, Aug. 1994; CR 1994, no. 284; EMC 1994.0284 (broken into three pieces and repaired).	1.15
<i>Willem G</i> 202*	NORW:14/16	<i>Obv.</i> +[S]TIEFN]E: <i>Rev.</i> +[---]E]M:G:O[:N]OR Norwich Castle Museum and Art Gallery; SCBI 26, no. 1464.	1.41
203	NORW:14/16	<i>Obv.</i> +[S]TIEFNE: <i>Rev.</i> [+---]EM:G[:O[:N]OR] FM; ex St James's Auctions, 3 Oct. 2005, lot 171 (part) (cut halfpenny, clipped).	0.38
204*	NORW:14/17	<i>Obv.</i> +[STIEFNE]: <i>Rev.</i> []M[:N]ON[:] R.P. Mack; ex Lawrence, lot 363; SCBI 20, no. 1624.	1.20
<i>Nottingham</i> <i>Svein</i> 205*	NOT:1/1	<i>Obv.</i> +[STIEFNE]: <i>Rev.</i> +SVEIN:ON:NOTING: Brewhouse Yard Museum of Nottingham Life; ex F.E. Burton; ex Carlyon-Britton, lot 1474 (part); ex Capt. R.J.H. Douglas; SCBI 17, no. 715.	1.37

<i>Mint/moneyer</i>	<i>Dies</i>	<i>Description</i>	<i>Weight (g/gr.)</i>
Oxford			
<i>Simon</i>			
206*	OXF:1/1	<i>Obv.</i> +ST[-----] <i>Rev.</i> +SIM[-----]XE: BM; ex Awbridge hoard; <i>BMC</i> 227.	1.30
207*	OXF:2/2	<i>Obv.</i> [--]TIEFNE <i>Rev.</i> +S[---]N:ON:OX: BM; ex Wicklewood hoard.	1.42
Peterborough?			
<i>Uncertain moneyer</i>			
208*	PET:1/1	<i>Obv.</i> +STIEFN[-] <i>Rev.</i> +[-----]R:ON:BVR BM; ex F. Elmore Jones; ex Lockett, lot 1145; Wells 1929, col. 109, no. 3.	1.32
Pevensey			
<i>Alwine</i>			
209	PEV:1/1	<i>Obv.</i> +STIEFNE: <i>Rev.</i> [+]ALPINE:ON:[-]IEF: Moscow; ex Vaida hoard; Elmore Jones and Blunt 1967, no. 35; Molvôgin 1994, no. 410; Molvôgin and Leimus 1995, no. 403.	1.46
210*	PEV:1/1	<i>Obv.</i> +STIEFNE: <i>Rev.</i> +ALPINE[:O]N[:]EF: Elmore Jones, lot 1109; ex Drabble, lot 714; ex Roth II, lot 140; ex W.J. Andrew; ex Allen, lot 378.	1.28/19.8
211*	PEV:2/2	<i>Obv.</i> +STIE[F]NE: <i>Rev.</i> +ALPINE:ON:PEF[E] BM; ex H.H. King.	1.38
212	PEV:2/2	<i>Obv.</i> +ST[I]EFNE: <i>Rev.</i> +ALPINE:O[N]PE[FE] FM; ex Dr W.J. Conte; ex Lestocq, lot 186.	1.24
213	PEV:2/2	<i>Obv.</i> +STIE[FN]E: <i>Rev.</i> [+]ALPINE:ON:PE[FE] <i>NCirc</i> 97 (1989), no. 4634; ex Glendining, 16 Nov. 1978, lot 634; ex Sotheby, 13 Nov. 1967, lot 67; ex Lockett, lot 1146; ex Walters, lot 71; King 1955–7, pl. III, 47; Mack 1966, pl. II, 120a.	1.24
214*	PEV:3/3	<i>Obv.</i> +STIEFNE: <i>Rev.</i> +ALVINE[:O]--]F: BM; ex F. Elmore Jones; Elmore Jones 1962, pl. IV, 16.	1.26
215	PEV:3/3	<i>Obv.</i> [+]STIEFN[E:] <i>Rev.</i> [+]ALVINE:O[---F:] Lord Stewartby; ex Portsdown Hill hoard, lot 181 (cut halfpenny).	0.70
<i>Felipe</i>			
216*	PEV:4/4	<i>Obv.</i> +STIEFNE: <i>Rev.</i> +[-]ELIPE:ON:P[---]ES BM; ex F. Elmore Jones; ex I. Pakenham; ex S.M. Spink; ex Boyne, lot 1192 (part); Elmore Jones 1955–7, pl. XXXI, 17.	1.25
Rye			
<i>Rawulf</i>			
217*	RYE:1/1	<i>Obv.</i> +STIEFNE: <i>Rev.</i> +RAP[V]L:ON:RIEE: BM; ex F. Elmore Jones; Elmore Jones 1960–1, pl. XI, 5; Seaman 1977, no. 11.	1.34
218	RYE:1/1	<i>Obv.</i> [+]STIEFNIE: <i>Rev.</i> [+RAP]VL[:O]N[R]IEE:] Dr D. Rogers; found north Norfolk (cut halfpenny).	0.54
219*	RYE:2/2	<i>Obv.</i> +STI[---]NE: <i>Rev.</i> []VLF:ON[R] [] Brewhouse Yard Museum of Nottingham Life; ex W.J. Andrew; <i>SCBI</i> 17, no. 716.	1.19

<i>Mint/moneyer</i>	<i>Dies</i>	<i>Description</i>	<i>Weight (g/gr.)</i>
220*	RYE:3/3	<i>Obv.</i> [---]EFNE <i>Rev.</i> +RAP[---]F:ONRI[---]: FM; ex Dr W.J. Conte; found Waldershare Park, near Dover, Kent, 31 Aug. 1996; CR 1996, no. 307; EMC 1996.0307.	1.13
221*	RYE:4/4	<i>Obv.</i> +STIEFNE: <i>Rev.</i> []F:ONRIE[] Portsdown Hill hoard, lot 182.	1.11/17.1
222*	RYE:5/5	<i>Obv.</i> +[-----] <i>Rev.</i> []ONRIE[] Found Grimston, Norfolk, May 1993; CR 1993, no. 275; EMC 1993.0275 (cut halfpenny).	0.67
223	—	<i>Obv.</i> ? <i>Rev.</i> 'RIEB or RIER' Vaida hoard; Molvögin 1994, no. 399; Molvögin and Leimus 1995, no. 404.	1.27
Salisbury			
<i>Edmund</i>			
224*	SAL:1/1	<i>Obv.</i> +STIEFNE: <i>Rev.</i> +EDMVN[---]SALE Found Maidstone, Kent, 1991; CR 1992, no. 294; EMC 1992.0294.	1.27
<i>Stanung</i>			
225	SAL:2/2	<i>Obv.</i> [+ST]IEFNE: <i>Rev.</i> [+ST]ANVNG:O[N]SAL BM; ex Wicklewood hoard.	1.33
226	SAL:2/2	<i>Obv.</i> +STIEFNE: <i>Rev.</i> +STAN[VNG:O]N:SAL Norweb, lot 1285; ex Parsons, lot 258; ex Carlyon Britton, lot 1476; ex Capt. R.J.H. Douglas; <i>SCBI</i> 16, no. 312.	1.40
227	SAL:2/2	<i>Obv.</i> +STIEF[NE]: <i>Rev.</i> [+S]TANVNG:ON:SA[L] <i>NCirc</i> 94 (1986), no. 3275; ex Glendining, 21 Sept. 1983, lot 104; ex Bird, lot 298; ex Burstal, lot 58; ex Drabble, lot 715 (part).	1.32/20.4
228*	SAL:2/2	<i>Obv.</i> +STIE[FN]E: <i>Rev.</i> +STAN[VNG:O]N:SAL Lockett, lot 3944; Mack 1966, pl. II, 122a.	wnr
229*	SAL:3/3	<i>Obv.</i> +STIE[F-]E: <i>Rev.</i> +STAN[V]NG:ON:SAL BM; ex Awbridge hoard; <i>BMC</i> 208.	1.30
230	SAL:3/3	<i>Obv.</i> +STI[E]F[-]E: <i>Rev.</i> [+STAN]VNG[:O]N:SA[L] Portsdown Hill hoard, lot 184 (broken into two pieces).	1.30/20.1
231	SAL:3/3	<i>Obv.</i> [---]T[-----] <i>Rev.</i> [+STANV]NG[:O]N:SA[L] Portsdown Hill hoard, lot 185 (bent and cracked).	1.16/17.9
232	SAL:4/4	<i>Obv.</i> +STIEFNE: <i>Rev.</i> +STANVNG:ON:SA[LE]: Hampshire County Council Museums & Archives Service; ex Portsdown Hill hoard, lot 183.	1.35/20.8
233*	SAL:4/4	<i>Obv.</i> +S[T]IEFNE: <i>Rev.</i> +[S]TANV[NG:]O[N:]SALE: Elmore Jones, lot 1403.	1.31/20.2
234*	SAL:5/4	<i>Obv.</i> +STIEF[-]E <i>Rev.</i> +STAN[VNG:ON:]SALE: BM; ex Awbridge hoard; <i>BMC</i> 209.	1.39
<i>Vin(e)man</i>			
235*	SAL:6/5	<i>Obv.</i> +STIEFNE: <i>Rev.</i> +VINMAN:ON:SA[-]: BM; ex F. Elmore Jones; Elmore Jones 1955–7, pl. XXXI, 18.	1.42
236	SAL:6/5	<i>Obv.</i> +STIEF[N]E: <i>Rev.</i> [+VINM]AN:ON:SA-] Found West Stafford parish, Dorset, Oct. 1998; CR 1998, 169; EMC 1998.0169 (cut halfpenny).	0.62

<i>Mint/moneyer</i>	<i>Dies</i>	<i>Description</i>	<i>Weight (g/gr.)</i>
237*	SAL:7/6 lead striking	<i>Obv.</i> +[-----]E: <i>Rev.</i> []INEMA[] Found Billingsgate spoil, in or before 1986; Archibald 1991, 341, 345–6 (no. 56).	2.51
<i>Uncertain moneyer</i>			
238*	SAL:8/7	<i>Obv.</i> [-----]E: <i>Rev.</i> +[]SALEB: Found Thorndon, Suffolk, Feb. 2002; CR 2002, no. 224; EMC 2002.0132 (cut halfpenny).	0.57
Sandwich			
<i>Osbern</i>			
239*	SAN:1/1	<i>Obv.</i> +STIEFNE: <i>Rev.</i> +OSBE[---]:ON:SANPI BM; BMC 210.	1.42
240*	SAN:2/2	<i>Obv.</i> +STI[---]N[---] <i>Rev.</i> +OSB[---]RN[---]N:S[---] St James's Auctions, 3 Oct. 2005, lot 162.	1.32
<i>Wulfric</i>			
241*	SAN:3/3	<i>Obv.</i> +STIEFNE: <i>Rev.</i> +P[---]RIC:ON:SAN BM; ex F. Elmore Jones; ex Lockett, lot 2964 (pierced).	1.38
242*	SAN:4/4	<i>Obv.</i> +STIEFNE: <i>Rev.</i> +PVLFRIC[?]:ON:SAN: Hunterian Museum; SCBI 53, no. 331.	1.34
243*	SAN:5/5	<i>Obv.</i> +STIEFNE: <i>Rev.</i> +[---]FRIC:ON:SAN A.H.F. Baldwin; ex Wills, lot 414; Elmore Jones 1955–7, pl. XXXI, 19.	wnr
244*	SAN:6/6	<i>Obv.</i> +S[---]E[---] <i>Rev.</i> []LFRC:ON:S[] Dr D. Rogers (cut halfpenny).	0.68
<i>Uncertain moneyer</i>			
245	—	<i>Obv.</i> ? <i>Rev.</i> 'D//', 'SAN' Vaida hoard; Molvögin 1994, no. 400; Molvögin and Leimus 1995, no. 405.	1.48
Shaftesbury			
<i>Colbern</i>			
246*	SHA:1/1	<i>Obv.</i> +S[---]NE: <i>Rev.</i> []OLBERN:ON:S[] Elmore Jones, lot 1112; Elmore Jones 1955–7, 552 and pl. XXXI, 27.	1.14/17.6
<i>Larence</i>			
247*	SHA:2/2	<i>Obv.</i> +STIEFNE: <i>Rev.</i> +LARENCE:ON:SAFE: FM; ex Dr W.J. Conte; bought M. Senior 1999.	1.27
Shrewsbury			
<i>Simound</i>			
248*	SHR:1/1	<i>Obv.</i> +STIEFNE: <i>Rev.</i> +SIM[---][V?]:ND:ON:SALOP Dr A.J.P. Campbell; ex Portsdown Hill hoard, lot 186.	1.31
SA¹⁴⁶			
<i>—ad</i>			
249*	SA:1/1	<i>Obv.</i> +[---]IEFNE: <i>Rev.</i> []AD:ON:SA[] Moscow; ex Vaida hoard; Elmore Jones and Blunt 1967, no. 38; Molvögin 1994, no. 401; Molvögin and Leimus 1995, no. 406.	1.45

¹⁴⁶ Salisbury, Sandwich, Shaftesbury or Shrewsbury.

<i>Mint/moneyer</i>	<i>Dies</i>	<i>Description</i>	<i>Weight (g/gr.)</i>
Stamford?			
<i>Aschil</i>			
250*	STA:1/1	<i>Obv.</i> +[-]TIEFNE: <i>Rev.</i> +ASCH[---]:STN: FM; ex Dr W.J. Conte; ex E.J. Harris; Harris and Sharman 1979, 284, no. 6.	1.34
Steyning			
<i>(?Rodb)ert</i>			
251*	STE:1/1	<i>Obv.</i> +STIEFNE: <i>Rev.</i> +[---]ERT:O[-]STEN Lestocq, lot 209; Sharp 1982.	1.27/19.6
Sudbury			
<i>Edward</i>			
252*	SUD:1/1	<i>Obv.</i> +STIEFNE: <i>Rev.</i> +EDPARD:ON:SVBY: BM; ex Lockett, lot 1147; ex Carlyon-Britton, lot 1477.	1.19
253*	SUD:2/2	<i>Obv.</i> +STIEFNE: <i>Rev.</i> +[---]ARD:ON:SV[-] Baldwin's Auction 40, 3 May 2005, lot 144.	1.29
<i>Gileber(t/d)</i>			
254	SUD:3/3	<i>Obv.</i> +STIEFN[E: -] <i>Rev.</i> [+GIL]EB[ERT]:ON:SV[-] BM; <i>BMC</i> 183.	1.50
255*	SUD:3/3	<i>Obv.</i> +STIEFNE: <i>Rev.</i> [+GILEB]ERT:ON:SV[-] FM; ex Dr W.J. Conte; bought Baldwin 1991.	1.41
256*	SUD:4/3	<i>Obv.</i> +STIE[-]N[-] <i>Rev.</i> +GIL[EBERT]:ON[SV[-] Elmore Jones, lot 1404.	1.35/20.8
257*	SUD:5/4	<i>Obv.</i> +STIEFNE: <i>Rev.</i> +[---]BERD:ON:SVB[-] BM; ex Murdoch, lot 243; <i>BMC</i> 211.	1.10
258*	SUD:6/5	<i>Obv.</i> [---]IEFNE: <i>Rev.</i> +GILEB[-----]VB Moscow; ex Vaida hoard; Elmore Jones and Blunt 1967, no. 36; Molvögin 1994, no. 402; Molvögin and Leimus 1995, no. 407.	1.35
<i>Uncertain moneyer</i>			
259	—	<i>Obv.</i> ? <i>Rev.</i> 'SVD' Vaida hoard; Molvögin 1994, no. 403; Molvögin and Leimus 1995, no. 408.	1.10
Tamworth			
<i>Alvred</i>			
260*	TAM:1/1	<i>Obv.</i> +STIEFNE: <i>Rev.</i> +ALVRED:ON:TAM BM; <i>BMC</i> 212; Elmore Jones 1955–7, pl. XXXI, 26.	1.37
261	TAM:1/1	<i>Obv.</i> +STIEFNE: <i>Rev.</i> [+A]LVRED:ON:TA[M] Moscow; ex Vaida hoard; Elmore Jones and Blunt 1967, no. 37; Molvögin 1994, no. 404; Molvögin and Leimus 1995, no. 409.	1.50
Taunton			
<i>Uncertain moneyer</i>			
262*	TAU:1/1	<i>Obv.</i> [---]S[-]JEFNE: <i>Rev.</i> +[-----]ANTVN: BM; <i>BMC</i> 213.	1.43

<i>Mint/moneyer</i>	<i>Dies</i>	<i>Description</i>	<i>Weight (g/gr.)</i>
Thetford			
<i>Gefrei</i> 263*	THE:1/1	<i>Obv.</i> +STIEFNE: <i>Rev.</i> +GEF[---]I:ON:TEFFO BM; ex Durrant, lot 203; <i>BMC</i> 215; Carson 1949, no. 9; Archibald 1967, pl. XV, 8.	1.39
<i>Hacun</i> 264	THE:1/2	<i>Obv.</i> +S[TIEFN]E: <i>Rev.</i> +hACVN[ON:T]IEF[E-] BM; bought Baldwin 1967; found near Cambridge; Archibald 1967, pl. XV, 6.	1.35
265*	THE:1/2	<i>Obv.</i> [+S]TIEFNE: <i>Rev.</i> +hACV[N:O]N:TEFE[-] FM; ex Dr W.J. Conte; ex E.J. Harris.	1.42
266	THE:1/2	<i>Obv.</i> +STIEFNE: <i>Rev.</i> +hACV[N]ON:TEF[E-] Elmore Jones, lot 1110; ex Christies, 14 June 1977, lot 328; Harris and Sharman 1979, no. 5.	1.43/22.1
267	—	<i>Obv.</i> ? <i>Rev.</i> 'hACVN', 'E/FFO' Vaida hoard; Molvögin 1994, no. 405; Molvögin and Leimus 1995, no. 410.	1.43
268	—	<i>Obv.</i> ? <i>Rev.</i> 'hA//', 'TEEF' Vaida hoard; Molvögin 1994, no. 406; Molvögin and Leimus 1995, no. 411.	1.40
<i>Uncertain moneyer</i>			
269	—	<i>Obv.</i> ? <i>Rev.</i> '////AT', 'TE' Vaida hoard; Molvögin 1994, no. 407; Molvögin and Leimus 1995, no. 412.	1.43
Warwick			
<i>Everard</i> 270*	WAR:1/1	<i>Obv.</i> +STIEFNE: <i>Rev.</i> +EVERARD:[---]PARPI: BM; ex F. Elmore Jones; ex Wills, lot 424; ex P.W.P. Carlyon-Britton; bought Spink 1904; ex Awbridge hoard; Elmore Jones 1955–7, pl. XXXI, 20; Ebsworth 1965, 85.	1.39
Watchet			
<i>Henri</i> 271*	WAT:1/1	<i>Obv.</i> +STIE[---] <i>Rev.</i> +hENR[-][-]N:PACHÉ: BM; ex Lockett, lot 1148; ex Carlyon-Britton, lot 1478; Mack 1966, pl. II, 128a; Blackburn 1974, 33 (no. 42) and pl. IV, 42.	1.39
272*	WAT:2/2	<i>Obv.</i> +[---]IEFNE: <i>Rev.</i> +hE[-]R[----]ChE: FM; ex St James's Auctions, 3 Oct. 2005, lot 169; ex Elmore Jones, lot 1113; ex Drabble, lot 711; Elmore Jones 1955–7, 551 and pl. XXXI, 21 (chipped).	1.33
Wilton			
<i>Eller</i> 273*	WIL:1/1	<i>Obv.</i> [+S]TIEFNE: <i>Rev.</i> +ELLE[R:ON:PILT] BM; ex Awbridge hoard; <i>BMC</i> 223.	1.36
274	WIL:1/1	<i>Obv.</i> +[S]TIEFNE: <i>Rev.</i> +EL[LER:ON:P]ILT Salisbury & South Wiltshire Museum; ex G.C. Moody bequest, 1991; ?ex Carlyon-Britton, lot 1479 (chipped).	1.14

<i>Mint/moneyer</i>	<i>Dies</i>	<i>Description</i>	<i>Weight (g/gr.)</i>
275	WIL:1/1	<i>Obv.</i> +STIEFNE: <i>Rev.</i> +[E]L[L]ER:ON:PIL[T] Portsdown Hill hoard, lot 187.	1.10/17.0
276*	WIL:2/1	<i>Obv.</i> +STIE[-]E: <i>Rev.</i> [+ELL]ER:[ON]:P[ILT] Elmore Jones, lot 1111.	1.28/19.7
277*	WIL:3/2	<i>Obv.</i> [--]TIEFN[-] <i>Rev.</i> +EL[--]R:[-----]V: Reynolds, lot 64; Elmore Jones 1955–7, pl. XXXI, 22.	wnr
278	–	<i>Obv.</i> ? <i>Rev.</i> 'ELLEL' Vaida hoard; Molvögin 1994, no. 412; Molvögin and Leimus 1995, no. 413.	1.28
<i>Willem</i>			
279*	WIL:4/3	<i>Obv.</i> +STIEFNE: <i>Rev.</i> +PILLEM:ON:PILTV BM; ex B.C. Roberts; ex S. Tyssen; <i>BMC</i> 216.	1.45
280*	WIL:5/3	<i>Obv.</i> +STIEFNE[:] <i>Rev.</i> +PILLEM:ON:PILTV FM; ex Dr W.J. Conte; ex Lockett, lot 3946.	1.39
281	WIL:5/3	<i>Obv.</i> +STIEFNE: <i>Rev.</i> +[PIL]LEM:ON:PILTV Hampshire County Council Museums & Archives Service; ex Portsdown Hill hoard, lot 188.	1.16/17.9
282*	WIL:6/4	<i>Obv.</i> [----]FNE: <i>Rev.</i> +PILLE[M:ON:P]ILT BM; ex Awbridge hoard; <i>BMC</i> 217.	1.24
283	WIL:7/4	<i>Obv.</i> +ST[IEFN]E: <i>Rev.</i> [+PILLEM:ON:P[ILT] BM; ex Awbridge hoard; <i>BMC</i> 218 (cracked and pierced).	1.17
284	WIL:7/4	<i>Obv.</i> [+STIE]FNE: <i>Rev.</i> [+PILLEM:O[N]PILT] BM; ex Awbridge hoard; <i>BMC</i> 219.	1.32
285*	WIL:7/4	<i>Obv.</i> +STIEFNE: <i>Rev.</i> [+PIL]LEM:ON:PILT St James's Auctions, 3 Oct. 2005, lot 170; ex Elmore Jones, lot 1405; ex Carlyon-Britton, lot 1480.	1.06
<i>Winchester</i>			
<i>Hue</i>			
286*	WIN:1/1	<i>Obv.</i> +STEFN[E:] <i>Rev.</i> +hVEON[---]NCEST: BM; ex Awbridge hoard; <i>BMC</i> 220.	1.39
287*	WIN:1/2	<i>Obv.</i> +[STEFN]E: <i>Rev.</i> []VE:ON:PINC[] Portsdown Hill hoard, lot 189 (bent and cracked).	1.34/20.7
288	–	<i>Obv.</i> ? <i>Rev.</i> '[]NCEST[]' Found Ashwell, Hertfordshire, Aug. 1998; EMC 1998.0089 (no images available).	1.36
<i>Worcester</i> ¹⁴⁷			
<i>Adam</i>			
289*	WOR:1/1	<i>Obv.</i> +STIEFNE: <i>Rev.</i> +ADAM[---]PIRECE: BM; ex Rev E. Rogers.	1.44

¹⁴⁷ Symons 2006, 572–3, 576–8, 583–5, argues that the moneyers Wulfic and Alard, who were charged with a redemption payment from 1162/3, must have been active in type 7, but it is possible that they were only active before the issue of type 7. Wulfic is known to have issued coins of Henry I and Stephen type 1.

<i>Mint/moneyer</i>	<i>Dies</i>	<i>Description</i>	<i>Weight (g/gr.)</i>
290	WOR:1/1	<i>Obv.</i> +STIEF[N]E- <i>Rev.</i> +AD[AM--]PIRECE: Birmingham Museum and Art Gallery; bought Baldwin 1984; ex Elmore Jones, lot 1406; Elmore Jones 1955–7, pl. XXXI, 23.	1.40/21.6
<i>Aelem</i>			
291*	WOR:2/2	<i>Obv.</i> +STIEFNE- <i>Rev.</i> +AELEM:O[N-]I[R]EC: BM; ex L.A. Lawrence.	1.20
292	WOR:2/2	<i>Obv.</i> +STIEFNE- <i>Rev.</i> +AELEM:ON[-I]REC: Birmingham Museum and Art Gallery; bought Baldwin 1990; ex Elmore Jones, lot 1675; Folkes 1763, pl. I; Ruding 1840, II, 303, and III, pl. I, 16; Elmore Jones 1955–7, pl. XXXI, 24.	1.32
York			
<i>Gefrei</i>			
293*	YOR:1/1	<i>Obv.</i> [-]STIEFNE- <i>Rev.</i> +GEFREI:ON:E[-]JER N.C. Ballingal; ex Lockett, lot 1149; Mack 1966, pl. II, 132a.	wnr
<i>Martin</i>			
294*	YOR:2/2	<i>Obv.</i> [+STIE]FNE- <i>Rev.</i> [-MA---N:-]NEVER[P] BM; ex Awbridge hoard; <i>BMC</i> 221.	1.37
295	YOR:2/2	<i>Obv.</i> +STIE[FN]E- <i>Rev.</i> [-MA---N:-N:]EVE[RP] BM; ex F. Elmore Jones.	1.35
296*	YOR:3/2	<i>Obv.</i> +STIEFNE- <i>Rev.</i> [-]MA[---]N[:N:]NEVERP Royal Collection of Coins and Medals, National Museum of Denmark, Copenhagen; <i>SCBI</i> 18, no. 1396.	1.46
297*	YOR:4/3	<i>Obv.</i> [----]EFNE- <i>Rev.</i> []N:ON:EVE[] <i>Patrick Finn List 14</i> (1998), no. 120 (cut halfpenny).	0.67/10.4
<i>Uncertain moneyer</i>			
298*	YOR:5/4	<i>Obv.</i> +STIEF[---] <i>Rev.</i> +[-----]N:EVE: Portsmouth Hill hoard, lot 191 (part; retained by finders) (broken and repaired).	1.17/18.1
299	—	<i>Obv.</i> ? <i>Rev.</i> 'EVER' Vaida hoard; Molvögin 1994, no. 408; Molvögin and Leimus 1995, no. 414.	1.25
300	—	<i>Obv.</i> ? <i>Rev.</i> []N[]VER[]' Found Ashwell, Hertfordshire, Aug. 1998; EMC 1998.0088 (no images available).	1.36
Uncertain mint			
<i>Raulf</i>			
301*	UNC:??/1	<i>Obv.</i> [--]IEFN[-] <i>Rev.</i> +RAV[---]ON[----] Hampshire County Council Museums & Archives Service; ex Portsmouth Hill hoard, lot 180.	1.21/18.7
302	—	<i>Obv.</i> ? <i>Rev.</i> 'RAVL/' , '///NE' Vaida hoard; Molvögin 1994, no. 414; Molvögin and Leimus 1995, no. 416.	1.39
303	—	<i>Obv.</i> ? <i>Rev.</i> 'RAVL/' Vaida hoard; Molvögin 1994, no. 415; Molvögin and Leimus 1995, no. 417.	1.35

<i>Mint/moneyer</i>	<i>Dies</i>	<i>Description</i>	<i>Weight (g/gr.)</i>
<i>Ricard</i>			
304*	UNC:??/2	<i>Obv.</i> +STIEFN[-] <i>Rev.</i> +RI[-]-----JE[-] BM; ex F. Elmore Jones.	1.44
<i>Rodbert</i>			
305*	UNC:??/3	<i>Obv.</i> [-]-----JE: <i>Rev.</i> +ROD[-]-----JN BM; ex F. Elmore Jones.	1.33
306*	UNC:??/4	<i>Obv.</i> [-]STIEFN[-] <i>Rev.</i> +RODBE[-]----- BM; ex F. Elmore Jones.	1.45
307*	UNC:??/5	<i>Obv.</i> +STIEFNE: <i>Rev.</i> +RODBERT:O[---]JN Moscow; ex Vaida hoard; Elmore Jones and Blunt 1967, no. 40; Molvögin 1994, no. 416; Molvögin and Leimus 1995, no. 418.	1.36
308*	UNC:??/6	<i>Obv.</i> +STIEF[-] <i>Rev.</i> +RODBE[-]-----]; Found Horncastle, Lincolnshire, 2000; CR 2000, no. 130; EMC 2000.0080 (chipped).	1.19
309*	UNC:??/7	<i>Obv.</i> +STIEFN[-] <i>Rev.</i> +R[-]BERT:O[----] SCMB 659 (July 1973), no. H3676; ex U.T. Holmes; ex V. du Bédat Smythe; ex H.A. Parsons.	wnr
310	—	<i>Obv.</i> ? <i>Rev.</i> +/DBE// Vaida hoard; Molvögin 1994, no. 417; Molvögin and Leimus 1995, no. 423.	1.02
<i>Waltier</i>			
311*	UNC:??/8	<i>Obv.</i> [-]-----]NE: <i>Rev.</i> []PALTIER[] BM; ex Awbridge hoard; BMC 228.	1.36
<i>Willem</i>			
312	—	<i>Obv.</i> '---E:' <i>Rev.</i> 'PILLEL[' Oslo University; ex Daeli hoard; Allen 1951, liii (fragment).	wnr
Uncertain mint and moneyer			
313*	—	<i>Obv.</i> +ST[-]----- <i>Rev.</i> []VE[] BM; ex F. Elmore Jones.	1.29
314*	—	<i>Obv.</i> +STI[-]----- <i>Rev.</i> []N:L[] BM; ex F. Elmore Jones.	1.32
315*	—	<i>Obv.</i> +[----]FN[-] <i>Rev.</i> +[]N BM; ex F. Elmore Jones (chipped).	1.06
316*	—	<i>Obv.</i> [-]ST[-]----- <i>Rev.</i> []REI:O[] Hastings Museums and Art Gallery; SCBI 42, no. 1962.	1.35
317*	—	<i>Obv.</i> +ST[-]----- <i>Rev.</i> []BERD:O[] Portsmouth Hill hoard, lot 178 (chipped).	1.19/18.3
318*	—	<i>Obv.</i> [-]IEF[-] <i>Rev.</i> []:O[] Portsmouth Hill hoard, lot 191 (part; retained by finders).	1.38/21.3
319*	—	<i>Obv.</i> [-]-----]FNE: <i>Rev.</i> []E[] Portsmouth Hill hoard, lot 191 (part; retained by finders).	1.07/16.5
320	—	<i>Obv.</i> ? <i>Rev.</i> 'A//E' Vaida hoard; Molvögin 1994, no. 418; Molvögin and Leimus 1995, no. 420.	1.52

<i>Mint/moneyer</i>	<i>Dies</i>	<i>Description</i>	<i>Weight (g/gr.)</i>
321	—	<i>Obv.</i> ? <i>Rev.</i> ? Vaida hoard; Molvögin 1994, no. 419; Molvögin and Leimus 1995, no. 428.	1.49
322	—	<i>Obv.</i> ? <i>Rev.</i> ? Vaida hoard; Molvögin 1994, no. 420 or 421; Molvögin and Leimus 1995, no. 429.	1.42
323	—	<i>Obv.</i> ? <i>Rev.</i> 'AS///' Vaida hoard; Molvögin 1994, no. 422; Molvögin and Leimus 1995, no. 419.	1.41
324	—	<i>Obv.</i> ? <i>Rev.</i> 'EEO//' Vaida hoard; Molvögin 1994, no. 423 or 424; Molvögin and Leimus 1995, no. 424.	1.40
325	—	<i>Obv.</i> ? <i>Rev.</i> 'EEBEE//' Vaida hoard; Molvögin 1994, no. 423 or 424; Molvögin and Leimus 1995, no. 426.	1.40
326	—	<i>Obv.</i> ? <i>Rev.</i> ? Vaida hoard; Molvögin 1994, no. 425 or 426; Molvögin and Leimus 1995, no. 430.	1.36
327	—	<i>Obv.</i> ? <i>Rev.</i> 'ASER//' Vaida hoard; Molvögin 1994, no. 427; Molvögin and Leimus 1995, no. 422.	1.34
328	—	<i>Obv.</i> ? <i>Rev.</i> '///RED' Vaida hoard; Molvögin 1994, no. 428; Molvögin and Leimus 1995, no. 425.	1.33
329	—	<i>Obv.</i> ? <i>Rev.</i> 'RO////' Vaida hoard; Molvögin 1994, no. 388; Molvögin and Leimus 1995, no. 421.	1.30
330	—	<i>Obv.</i> ? <i>Rev.</i> '///NM//' Vaida hoard; Molvögin 1994, no. 429; Molvögin and Leimus 1995, no. 427.	1.30
331	—	<i>Obv.</i> ? <i>Rev.</i> ? Vaida hoard; Molvögin 1994, no. 430; Molvögin and Leimus 1995, no. 431.	1.23
332	—	<i>Obv.</i> ? <i>Rev.</i> ? Vaida hoard; Molvögin 1994, no. 431; Molvögin and Leimus 1995, no. 432 (clipped).	1.33
333	—	<i>Obv.</i> Illegible <i>Rev.</i> Illegible Found Llantrithyd, Vale of Glamorgan, Sept. 1993; CR 1993, no. 272; EMC 1993.0272 (fragment).	0.43
334*	—	<i>Obv.</i> [-----]NE: <i>Rev.</i> []BER[] Found near Horncastle, Lincolnshire, Sept. 1994; CR 1994, no. 285; EMC 1994.0285.	1.39
335	—	<i>Obv.</i> ? <i>Rev.</i> ? Found Irnham Hall, Lincolnshire, Sept. 1994; CR 1997, no. 189 (not illustrated); EMC 1997.0189.	wnr
336	—	<i>Obv.</i> '+STIEF[]' <i>Rev.</i> '+HDMO[]' Found near Grimsby, North East Lincolnshire, Feb. 1989; EMC 2001.0920 (no images available).	wnr

<i>Mint/moneyer</i>	<i>Dies</i>	<i>Description</i>	<i>Weight (g/gr.)</i>
337*	—	<i>Obv.</i> †STIEFN[-] (double-struck) <i>Rev.</i> []V:ONLE[] (double-struck) Lord Stewartby (cracked and chipped).	1.02
338*	—	<i>Obv.</i> [-]STIEFNE: <i>Rev.</i> []AN:ON[] BM; ex J.A.P. Charrington; excavated Facombe Netherton, Hampshire, 1967–80; Archibald 1990, 441 (no. 16) (cut halfpenny).	0.46
339*	—	<i>Obv.</i> [----]EFN[-] <i>Rev.</i> []:ON[] Royal Albert Memorial Museum, Exeter; ex Brettell, lot 310; SCBI 24, no. 870 (cut halfpenny).	0.65
340*	—	<i>Obv.</i> [-----]E: <i>Rev.</i> []ON[] Dr D. Rogers; ex Wicklewood hoard, lot 142 (part) (cut halfpenny).	0.70
341*	—	<i>Obv.</i> [-----]N[-] <i>Rev.</i> Illegible Portsdown Hill hoard, lot 191 (part; retained by finders) (cut halfpenny, chipped).	0.60/9.2
342*	—	<i>Obv.</i> †ST[-----] <i>Rev.</i> Illegible Portsdown Hill hoard, lot 191 (part; retained by finders) (cut halfpenny, fragment).	0.29/4.4
343*	—	<i>Obv.</i> [--]TIEF[--] <i>Rev.</i> []RE[] Found Dunwich, Suffolk, in or before 1908; Hancox 1908, fig. 7 (cut halfpenny, clipped).	wnr
344*	—	<i>Obv.</i> [----]FNE: <i>Rev.</i> []RE[] Found Stotford, Bedfordshire, 1979; Blackburn and Bonser 1985, no. 64; EMC 1985.0064 (cut halfpenny).	0.52
345*	—	<i>Obv.</i> †[---]IEFN[-] <i>Rev.</i> †[-----]A[] Found Montacute, Somerset, in or before July 1981; CR 1988, no. 234; EMC 1988.0234 (cut halfpenny).	0.71
346*	—	<i>Obv.</i> †[-----] <i>Rev.</i> []N[] Found near Beverley, East Yorkshire, 1991; CR 1990, no. 219; EMC 1990.0219 (cut halfpenny).	0.80
347	—	<i>Obv.</i> ? <i>Rev.</i> ? Found Mundham, Norfolk, Feb. 1992; CR 1991, no. 144 (not illustrated); EMC 1991.0144 (cut halfpenny).	0.68
348	—	<i>Obv.</i> ? <i>Rev.</i> ? Found Flixton, North Yorkshire, in or before 1993; CR 1993, no. 274 (not illustrated); EMC 1993.0274 (cut halfpenny, clipped).	0.24
349*	—	<i>Obv.</i> [----]EFN[] <i>Rev.</i> †SPI[] (same rev. die as no. 350) Found near Lewes, East Sussex, 1991; CR 1996, no. 306; EMC 1996.0306 (cut halfpenny).	0.51
350*	—	<i>Obv.</i> [----]EFN[-] <i>Rev.</i> †SPI[] (same rev. die as no. 349) Found Beachamwell, Norfolk, April 2004; EMC 2004.0090 (cut halfpenny).	0.52
351*	—	<i>Obv.</i> [-----]E: <i>Rev.</i> Illegible Found Little Hockham, Norfolk, Jan. 1998; CR 1997, no. 190; EMC 1997.0190 (cut halfpenny, clipped).	0.51
352*	—	<i>Obv.</i> †[-----] <i>Rev.</i> []ER[] Found Dunwich, Suffolk, 1996; EMC 1999.0087 (cut halfpenny).	0.59
353*	—	<i>Obv.</i> Inscription off flan <i>Rev.</i> †GE[-]R[] BM; ex Wicklewood hoard (cut farthing).	0.29

<i>Mint/moneyer</i>	<i>Dies</i>	<i>Description</i>	<i>Weight (g/gr.)</i>
354*	–	<i>Obv.</i> [--]TI[----] <i>Rev.</i> []R[] Found near Shiptonthorpe, East Yorkshire, March 1985; Blackburn and Bonser 1985, no 59; EMC 1985.0059 (cut farthing).	wnr
355*	–	<i>Obv.</i> +[-----] <i>Rev.</i> []EFR[] Found Staxton, North Yorkshire, Oct. 1997; EMC 2001.0841 (cut farthing).	0.34
356*	–	<i>Obv.</i> Illegible <i>Rev.</i> Illegible Found Norwich, 1998–9; EMC 1999.0192 (cut farthing).	0.35
357*	–	<i>Obv.</i> {-----}E: <i>Rev.</i> +[]O: Found Dickleburgh, Norfolk, in or before 2002; CR 2002, no. 226; EMC 2002.0144 (cut farthing).	0.30
358*	–	<i>Obv.</i> [----]E[---] <i>Rev.</i> []N[] Dr D. Rogers (cut farthing).	0.36
359*	–	<i>Obv.</i> +[-----] <i>Rev.</i> []R:[D?][] St James's Auctions, 3 Oct. 2005, lot 172 (part); ex Doubleday, lot 654 (part); ex F. Elmore Jones (cut farthing).	0.29
360*	–	<i>Obv.</i> Inscription off flan <i>Rev.</i> +RO[] St James's Auctions, 3 Oct. 2005, lot 172 (part); ex Doubleday, lot 654 (part); ex J.O. Manton; found Dunwich (cut farthing, clipped).	0.27
Irregular			
361*	IRR:1/1	<i>Obv.</i> +STIE[]E: <i>Rev.</i> +[--LI]SIT:[I?]-IR:NONET (second N reversed) Hunterian Museum; <i>SCB</i> 53, no. 332; Elmore Jones 1955–7, pl. XXXI, 29; Mack 1966, pl. II, 135a.	1.30
362	IRR:1/1	<i>Obv.</i> +[STIE][]E: <i>Rev.</i> [+--]LISIT:[I?]-IR:NON]ET (second N reversed) Elmore Jones, lot 1114.	1.22/18.9
363*	IRR:2/2	<i>Obv.</i> +S[TI]EF[N]REX <i>Rev.</i> +ROGIE[-]-[----]N Found Clothall, Hertfordshire, 1986–8; CR 1988, no. 233; EMC 1988.0233.	1.12
364	IRR:2/2	<i>Obv.</i> +STIEFNREX <i>Rev.</i> +ROGIE[-]-[----]N Portsdown Hill hoard, lot 173.	1.37/21.1
365	IRR:2/2	<i>Obv.</i> [+STIEF]NR[EX] <i>Rev.</i> [+R]OGIE[-]-[----]N Portsdown Hill hoard, lot 174 (cracked).	1.30/20.0
366*	IRR:3/3	<i>Obv.</i> [][AI?] <i>Rev.</i> +A[S?]O[T?][]O[-----] A.H.F. Baldwin; Elmore Jones 1955–7, pl. XXXI, 30.	wnr
367*	IRR:4/4	<i>Obv.</i> +[]IEFNE: <i>Rev.</i> +[---]N[---]RTIIO Lockett, lot 2965.	wnr
368	IRR:5/5	<i>Obv.</i> +STE[F]NV <i>Rev.</i> [+--]E[---]G:D[E]LA[-D:] (first E round) BM; ex Drabble, lot 719 (pierced).	1.27
369*	IRR:5/5	<i>Obv.</i> +STEF[NV] <i>Rev.</i> +[-E---G:]DELA[-JD:] (first E round) Lockett, lot 3945.	wnr
370*	IRR:6/6	<i>Obv.</i> +ST[] <i>Rev.</i> []N[] Hampshire County Council Museums & Archives Service; ex Portsdown Hill hoard, lot 190.	1.28/19.7
371*	IRR:7/7	<i>Obv.</i> +SINAI[] <i>Rev.</i> +INN[]N:I (NN ligated) BM; <i>BMC</i> 224.	1.36

<i>Mint/moneyer</i>	<i>Dies</i>	<i>Description</i>	<i>Weight (g/gr.)</i>
372	IRR:8/8	<i>Obv.</i> [+SEI]NN[R]IN: (S on its side; E and third N reversed; sceptre right) <i>Rev.</i> +:TN[NEIDII][R?][I]IOEI BM; BMC 225.	1.50
373	IRR:8/8	<i>Obv.</i> +S[EIN]N[R]IN: (S on its side; E and third N reversed; sceptre right) <i>Rev.</i> +[:T]N[NEI]DII[R?][I]IOEI BM; ex F. Elmore Jones.	1.41
374*	IRR:8/8	<i>Obv.</i> +SEINN[R]IN: (S on its side; E and third N reversed; sceptre right) <i>Rev.</i> +:TNNEIDII[R?][I]IOEI FM; ex Dr W.J. Conte.	1.34
375	IRR:8/8	<i>Obv.</i> [+SEINN[R]IN:] (S on its side; E and third N reversed; sceptre right) <i>Rev.</i> +:T[N]N[EIDII[R?][I]IOEI Found Snarford, Lincolnshire, 1995; CR 1995, no. 213; EMC 1995.0213 (chipped).	1.25
376*	IRR:8/9	<i>Obv.</i> [+SEINN[R]IN:] (S on its side; E and third N reversed; sceptre right) <i>Rev.</i> +I[]NII-D[-II:] BM; ex Awbridge hoard; BMC 226.	1.36
377	IRR:8/9	<i>Obv.</i> +SE[I]NN[R]IN: (S on its side; E and third N reversed; sceptre right) <i>Rev.</i> +[:I]NII-D[-II:] Found Docking, Norfolk, Nov. 2005; EMC 2005.0249.	1.40

APPENDIX B. MONEYS OF THE TYPE 7 MINTS

The lists of moneys in Stephen types 1, 2 and 6 are based upon the lists published by E.J. Harris, with amendments provided by the *BNJ* Coin Register, EMC and *SCBI*.¹⁴⁸ Stephen type 1 here includes coins from erased dies and minor local variants of the type. The *Pereric* type (indicated by P), coins of Matilda (M), Stephen BMC types 3, 4 and 5, and all other varieties not closely based upon type 1 are listed in the second column. The lists for *Cross-and-Crosslets* class A are based upon Derek Allen's BMC and information provided by Alan Dawson, whose advice on the mints and moneys of this coinage has been invaluable.¹⁴⁹ Three moneys have been included in the *Cross-and-Crosslets* column on the basis of coins of class C/A or C, and these are indicated.

<i>Mint/moneyer</i>	<i>Type 1</i>	<i>Local types etc</i>	<i>Type 2</i>	<i>Type 6</i>	<i>Type 7</i>	<i>Class A etc</i>
Bath						
Alfred	—	—	—	—	x	—
Bedford						
Davit	—	—	—	—	x	—
Iohan	—	—	—	x	x	—
Tomas	—	—	x	x	x	—
Willem	x	—	—	—	—	—
Bramber						
Orgar	—	—	—	—	x	—
Willem	—	—	—	—	x	—
Buckingham						
Rodbart	—	—	—	x	x	—
Bury St Edmunds						
Ace(lin)	x	—	x	x	x	—
Gil(l)ebert	x	—	x	—	x	—
Henri	x	—	—	—	—	—
Hunfrei	x	—	x	x	—	—
Oddo	x	—	—	—	—	—
Willem	—	—	—	—	x	x
—ric	—	—	—	x	—	x
Cambridge						
Hereveu	x	—	—	—	—	—
?	—	—	—	—	x	—

¹⁴⁸ Harris 1983–8; see n. 7 for EMC and *SCBI*.¹⁴⁹ Allen 1951.

<i>Mint/moneyer</i>	<i>Type 1</i>	<i>Local types etc</i>	<i>Type 2</i>	<i>Type 6</i>	<i>Type 7</i>	<i>Class A etc</i>
Canterbury						
Adam	—	—	—	—	—	x
Alferg	—	—	—	—	—	x
Algar	x	—	—	—	—	—
A—	—	—	—	x	—	—
Edmond	—	—	—	—	x	—
Edward	x	—	x	—	x	—
Godhese	x	—	—	—	—	—
Goldhavoc	—	—	—	—	—	x
Hiun	x	—	—	—	—	—
Ricard	—	—	—	—	x	x
Ricard Mr	—	—	—	—	—	x
Rodbert	x	—	x	x	x	—
Rodbert M	—	—	—	—	x	—
Roger Bo(d)	x	—	x	—	—	—
Rog(i)er	—	—	x	x	x	x
Roger F	—	—	—	—	—	x
Rogier W?	—	—	—	—	—	?
Sawine	x	—	—	—	—	—
Wille(l)m	x	P	—	—	—	C
Wiulf	—	—	—	—	—	x
Wulfrie	x	—	—	—	—	—
Wulfwine	x	—	—	—	—	—
Castle Rising						
Bertold	x	—	—	—	—	—
(H)iu	—	—	—	—	x	—
Rodbert	—	—	x	x	—	—
Colchester						
Alfwine/Alwin	x	—	—	x	—	x
Edward	x	—	—	—	—	—
Godhese	—	—	—	—	x	—
Randulf	—	—	x	x	x	—
Sa(f/v)are	x	—	x	—	—	—
Dover						
Adam	—	—	x	—	x	—
Dunwich						
H(e/i)nri	?	—	x	x	—	—
Nicole	—	—	—	—	x	—
Paen	—	—	x	—	—	—
Rogier	—	—	—	x	?	—
Turstein	—	—	—	x	—	—
Walter	—	—	—	x	—	—
Exeter						
A(i)lric	x	—	—	—	x	—
Algar	x	—	—	—	—	—
Brihtwi(ne)	x	—	—	—	—	—
Edwid	—	—	—	—	—	x
Guncelin	—	—	—	—	—	x
Ricard	—	—	—	—	—	x
Rogier	—	—	—	—	—	x
Semier	x	—	—	—	—	—
Gloucester						
Alfwine	x	—	—	—	—	—
Gillebert	x	—	—	—	—	—
Godwin	—	—	—	—	—	x
Nicol	—	—	—	—	—	x
Ra(wu)lf	x	x	—	—	x	—
Ro(d)bert	—	x	—	—	—	x
Sawulf	—	—	—	—	—	x
Wibert	x	—	—	—	—	—
Willem	—	x	—	—	x	—

<i>Mint/moneyer</i>	<i>Type 1</i>	<i>Local types etc</i>	<i>Type 2</i>	<i>Type 6</i>	<i>Type 7</i>	<i>Class A etc</i>
Hastings						
Aldred	x	—	x	x	—	—
Rodbert	x	—	x	6/7	x	—
Sawine	x	—	x	—	—	—
Wenstan	x	—	—	—	—	—
Hedon						
Gerard	—	—	—	—	x	—
Hereford						
Driu	—	—	—	—	x	C/A
Edric(us)	x	—	—	—	—	—
Osbern	—	—	—	—	—	x
Saric	x	—	—	—	x	—
Sibern	x	x	—	—	—	—
Stefne	—	—	—	—	—	x
Willelm	—	x	—	—	—	—
Witric	x	x	—	—	—	—
—ward	—	—	—	—	—	x
Huntingdon						
Godmer	—	—	—	—	x	—
Walteir	—	—	—	—	x	—
Ilchester						
Reinard	—	—	—	—	—	x
Ricard	—	—	—	—	—	x
Rocelin	—	—	—	—	—	x
?	—	—	—	—	x	—
Ipswich						
Ædgar	x	—	x	—	—	—
Alaien	—	—	x	—	—	—
Alfric	x	—	—	—	—	—
Davit	—	—	—	—	x	—
Edmund	x	—	x	—	—	—
Germane	—	—	x	—	—	—
Gillebert	—	—	x	—	—	—
Osber(n/d)	x	—	x	x	—	—
Paen/Paganus	x	—	—	—	—	—
Rodbert	—	—	—	—	x	C
Ro(d)gier	x	—	x	—	—	—
Leicester						
Ricard	—	—	—	—	—	x
Rodbert	—	—	—	—	—	x
Samar	x	—	—	—	—	—
Sim(o/u)n	x	5. x	—	—	x	—
Lewes						
Elmar	—	—	x	—	—	—
Herrevi	x	—	—	—	—	—
Hunfrei	—	—	—	x	x	—
Os(e)bern	x	—	x	—	—	—
Rogier	—	—	—	x	—	—
Willem	x	—	—	—	—	—
Lincoln						
Ailric(us)	—	x	—	—	—	—
Aldred(us)	x	x	—	—	—	—
Andreu	—	—	—	—	—	x
Arnwi	x	—	—	—	—	—
Aslac/Oslac	x	—	—	—	—	—
Gladwin(e)	x	P. x	—	—	—	—
Godwine	—	4	—	—	—	—
Gurth	—	—	—	—	x	—
Hue	—	—	—	—	x	—
Lanfram	—	—	—	—	—	x
Paen	—	4	—	—	x	—
Raven	—	—	—	—	—	x

<i>Mint/moneyer</i>	<i>Type 1</i>	<i>Local types etc</i>	<i>Type 2</i>	<i>Type 6</i>	<i>Type 7</i>	<i>Class A etc</i>
<i>Lincoln continued</i>						
Ra(w)ulf	x	P	—	—	—	x
Reinald	x	P	—	—	—	—
Rogier	—	x	—	—	—	—
Si(g)ward	x	P	—	—	—	—
Swein	—	—	—	—	—	x
<i>London</i>						
Adam	—	—	—	—	x	—
Adelard	x	—	—	—	—	—
Alfred/Alvered	x	P	—	x	—	—
Al(f)win(e)	x	—	—	—	—	x
Algar	x	—	—	—	—	—
Alisand(re/er)	x	—	—	x	x	—
Baldewin(e)	x	—	—	—	—	—
Bricmar	x	—	—	—	—	—
Der(r)eman	x	—	—	—	x	—
Edmund	—	—	—	—	—	x
Edward	—	—	x	—	—	—
Estmund	x	—	—	—	—	—
Gef(f)rei	—	—	x	x	x	x
Godard	—	—	x	x	—	—
Godefroi	—	—	—	—	—	x
Godric(us)	x	P	—	—	—	—
G—asebi	—	—	—	—	x	—
Hamund	—	—	x	—	—	—
Hunfrei	—	—	—	—	—	x
Iohan	—	—	—	—	—	x
L(i)efred	x	—	—	—	—	—
Martin	—	—	—	—	—	x
Pieres	—	—	—	—	—	x
Pieres Mer	—	—	—	—	—	x
Pieres Sal	—	—	—	—	—	x
Randul/Raulf	—	—	—	x	x	—
Ricard	—	—	—	—	x	x
Ricard R	—	—	—	—	x	—
Ricard S	—	—	—	—	x	—
Rodbert	x	—	x	—	x	x
Rog(i)er	x	—	—	—	x	—
Sme(a)wine	x	—	—	—	—	—
Swetman	—	—	—	—	—	x
T(i)erri (D)	—	—	x	x	x	—
Tovi	x	—	—	—	—	—
Walter	—	—	—	x	—	—
Wid	—	—	—	—	—	x
Wul(f)win(e)	x	—	x	x	x	—
<i>Northampton</i>						
Ingeram	—	—	—	—	—	x
Iosep	—	—	—	—	—	x
Pa(i)en	x	3	—	x	x	—
Pieres	—	—	—	—	—	x
Reimund	—	—	—	—	—	x
Stefene	—	—	—	—	—	x
Waltier	—	—	—	—	—	x
Warnier	—	—	—	—	—	x
Willem	—	3	—	—	—	—
<i>Norwich</i>						
Adam	x	—	—	—	—	—
Ædstan/Edstan	x	—	x	x	—	—
Ælfric/Al(f/v)ric(h)	—	—	x	x	x	—
Ælfward/Ailward	x	—	x	—	—	—
Ailwi	x	—	x	—	—	—
Davi	—	—	—	—	x	—
Etrei/Oter(che)	x	—	—	—	—	—

<i>Mint/moneyer</i>	<i>Type 1</i>	<i>Local types etc</i>	<i>Type 2</i>	<i>Type 6</i>	<i>Type 7</i>	<i>Class A etc</i>
Norwich <i>continued</i>						
Eustace	x	—	—	—	—	—
Gilebert	—	—	—	—	—	x
Godwine	x	—	—	?	—	—
Herbert	—	—	—	—	—	x
Herbert R	—	—	—	—	—	x
Hermer	x	—	x	x	—	—
Hildebran	—	—	—	x	x	—
Hiun	x	—	—	—	—	—
Hue	—	—	—	—	—	x
Jocelin	—	—	—	—	x	—
Jordan	—	—	—	x	—	—
Nicol	—	—	—	—	—	x
Picot	—	—	—	—	—	x
Ra(nd)ulf/Ra(w)ul(us)	—	—	x	x	x	—
Reiner	—	—	—	—	—	x
Ricard	—	—	—	—	—	x
Rogier	—	—	x	—	x	—
Sihtric	x	—	—	—	—	—
Stanchil/Stencil/Staneril	—	—	x	x	—	—
Suneman	x	—	—	—	—	—
Swe(t/d)man	x	—	—	—	—	—
Thor(r)	—	—	x	x	x	—
Walt(i)er	x	—	x	x	—	—
Wille(l)m	x	—	—	x	x	—
Willem G	—	—	—	—	x	—
Nottingham						
Reinald	x	—	—	—	—	—
S(w/v)ein	x	4	—	—	x	—
Oxford						
Adam	x	x	—	—	—	x
Aschetil	—	—	—	—	—	x
G(a/i)han	x	—	x	—	—	—
Hargod	x	—	—	—	—	—
Osbern	x	x	—	—	—	—
Ra(w)ulf	x	—	—	—	—	—
Rogier	—	—	—	—	—	x
Simon	—	—	—	—	x	—
Swetig	x	M	—	—	—	—
Peterborough?						
?	—	—	—	—	x	—
Pevensey						
Al(f)wine	x	x	x	—	x	—
Felipe	—	—	—	—	x	—
Hervei	x	—	—	—	—	—
Rye						
Ra(w)ulf	x	—	x	x	x	—
(?Rodber)t	—	—	x	—	—	—
Salisbury						
Daniel	—	—	—	—	—	x
Edmund	—	—	—	—	x	—
Levric	—	—	—	—	—	x
Stan(gh)un(g)	x	—	—	—	x	—
Vineman	—	—	—	—	x	—
?	—	x	—	—	—	—
Sandwich						
Osbern	—	—	—	—	x	—
Wulfic	—	—	x	—	x	—
Shaftesbury						
Colbern	—	—	—	—	x	—
Larence	—	—	—	—	x	—
Ricard	x	—	—	—	—	—
Sagrim	x	—	—	—	—	—

<i>Mint/moneyer</i>	<i>Type 1</i>	<i>Local types etc</i>	<i>Type 2</i>	<i>Type 6</i>	<i>Type 7</i>	<i>Class A etc</i>
Shrewsbury						
Ravensart	x	-	-	-	-	-
Rodbert	x	-	-	-	-	-
Simound	-	-	-	-	x	-
Warin	-	-	-	-	-	x
Stamford						
Aschil	-	-	-	-	?	-
Lef(s/r)i	x	P	-	x	-	-
Siward	x	-	-	-	-	-
Steyning						
(?Rodb)ert	-	-	-	-	x	-
Sudbury						
Al—	-	-	-	x	-	-
Edward	x	-	-	-	x	-
Gileber(t/d)	-	-	-	-	x	-
Godimer	x	-	-	-	-	-
Tamworth						
Al(f/v)red	x	-	-	-	x	-
Taunton						
Alfred	x	-	-	-	-	-
?	-	-	-	-	x	-
Thetford						
Ailwi	-	-	x	-	-	-
Bald(e)win(e)	x	x	x	-	-	-
Davit	-	-	x	x	-	-
Gef(f)rei	x	-	-	x	x	-
Ha(c/t)un	-	-	x	x	x	-
Od(d)e	x	-	-	-	-	-
Rodbert A	x	-	-	-	-	-
Siwate	-	-	-	-	-	x
Turstain	-	-	-	-	-	x
Willem	-	-	-	-	-	x
Willem De	-	-	-	-	-	x
Willem Ma	-	-	-	-	-	x
Warwick						
Edred	x	-	-	-	-	-
Everard	x	-	-	-	x	-
Lefric	x	-	-	-	-	-
Watchet						
Henri	-	-	-	-	x	-
Wilton						
Aschetil	-	-	-	-	-	x
Eller	-	-	-	-	x	-
Falche	x	-	-	-	-	-
Gilebert	-	-	-	x	-	-
Lantier	-	-	-	-	-	x
Tomas	x	-	-	-	-	-
Willem	-	-	-	-	x	x
Winchester						
A(i)lwold	x	-	-	-	-	-
Geffrei	x	P	-	-	-	-
Herbert	-	-	-	-	-	x
Hosbert	-	-	-	-	-	x
Hue	-	-	-	-	x	-
Kippi(n)g	x	-	-	-	-	-
Ricard	-	-	-	-	-	x
Rogier/Rogirus	x	-	-	-	-	-
Salet	x	-	-	-	-	-
Siward	x	-	-	-	-	-
Stiefne	x	-	-	-	-	-
Willem	-	-	-	-	-	x

<i>Mint/moneyer</i>	<i>Type 1</i>	<i>Local types etc</i>	<i>Type 2</i>	<i>Type 6</i>	<i>Type 7</i>	<i>Class A etc</i>
Norwich <i>continued</i>						
Worcester						
Adam	—	—	—	—	x	—
Aelem	—	—	—	—	x	—
Alfred	x	—	—	—	—	—
Godric	x	—	—	—	—	—
Wulfric	x	—	—	—	—	—
York						
Aschetil	x	—	—	—	—	—
Autgrim	x	—	—	—	—	—
Cudbert	—	—	—	—	—	x
Gefrei	—	—	—	—	x	—
Gerrard	—	—	—	—	—	x
Godwin	—	—	—	—	—	x
Griffin	—	—	—	—	—	x
Herbert	—	—	—	—	—	x
Hervi	—	—	—	—	—	x
Jordan	—	—	—	—	—	x
Laisig	x	—	—	—	—	—
Martin	x	—	—	—	x	—
Norman	—	—	—	—	—	x
Otburn	x	—	—	—	—	—
Stanchil	x	—	—	—	—	—
Thomas filius Ulf	—	x	—	—	—	—
Turstan	x	—	—	—	—	—
Uhtred	x	—	—	—	—	—
Ulf	x	—	—	—	—	—
Willem	—	—	—	—	—	x
Wulfsi	—	—	—	—	—	x

APPENDIX C. TYPE 7 MONEYS IN THE PIPE ROLLS

Devonshire

[Exeter: Alric]

PR 5 Henry II [1158/9], 42:

The sheriff owes 20 marks for Alric the moneyer.

PR 6 Henry II [1159/60], 51:

The sheriff has paid 10 marks for Alric the moneyer and owes 10 marks.

PR 7 Henry II [1160/1], 28:

Alric the moneyer has paid 33s. 4d. and owes 100s.

PR 8 Henry II [1161/2], 4:

Alric the moneyer has paid 2 marks and owes 73s. 4d.

PR 9 Henry II [1162/3], 12:

Alric the moneyer has paid 73s. 4d. and is quit.

Dorset

[Shaftesbury: Colbern and Larence]

PR 6 Henry II [1159/60], 42:

The sheriff renders an account of 13s. 4d. for Colbert the moneyer. He has paid it and is quit.

The sheriff renders an account of 26s. 8d. for Larn the moneyer. He has paid it and is quit.

Essex

[London: Alisand(re/er)]

PR 5 Henry II [1158/9], 5:

Alexander the moneyer owes £20 by the pledge of William de Lanvalein.

Kent

[Dover: Adam]

PR 4 Henry II [1157/8], 185:

Adam the moneyer owes 50 marks of silver for his redemption by the pledge of Ralph Picot (the sheriff), through Simon de Criville.

PR 5 Henry II [1158/9], 59:

The sheriff renders an account of 50 marks for Adam the moneyer of Dover, and has paid £6 18s. 10d.

Lincolnshire

[Hedon: Gerard]

PR 3 Henry II [1156/7], 83:

Gerard, moneyer of Grimsby, renders an account of 1 mark of gold. He has paid £6 [in silver], and is quit.

London

[London: Geffrei]

PR 5 Henry II [1158/9], 3:

Geoffrey the moneyer owes 10 marks.

PR 6 Henry II [1159/60], 14:

Geoffrey the moneyer has paid 5 marks and owes 5 marks.

Norfolk and Suffolk

[Ipswich: Davit, or Norwich: Davi]

PR 5 Henry II [1158/9], 13:

David the moneyer owes 1 mark.

PR 7 Henry II [1160/1], 2:

David the moneyer has paid 1 mark and is quit.

[Norwich: Al(f/v)ric(h)]

PR 5 Henry II [1158/9], 11:

The sheriff renders an account of 100s. for Aluric the moneyer. He has paid 50s. and owes 50s.

[Norwich: Al(f/v)ric(h), Jocelin, Ra(nd)ulf and Thor]

PR 6 Henry II [1159/60], 3:

The old moneyers owe £23 15s. 4d. (amended to £23 15s.).

PR 9 Henry II [1162/3], 29:Thord the moneyer and Ralph (*Rad'*), Goscelin, Jordan and Aluric owe £23 15s.*PR 13 Henry II* [1166/7], 18:Thord the moneyer and Ralph, *Joscelin*, Jordan and Aluric owe £23 15s., but some of them are dead and others have nothing.

[Norwich: Willem or Willem G]

PR 4 Henry II [1157/8], 131:

William the moneyer renders an account of 20 marks. He has paid 10 marks and owes 10 marks.

[Sudbury: Edward]

PR 6 Henry II [1159/60], 3:

Edward the moneyer renders an account of £6 18s. 5d. He has paid 45s. 1d. and owes £4 13s. 4d.

[Sudbury: Gillebert(u)d]

PR 5 Henry II [1158/9], 11:

The sheriff renders an account of £40 for Gillebert the moneyer. He has paid £15 6s. 8d. and owes £24 13s. 4d.

PR 6 Henry II [1159/60], 3:

Gillebert the moneyer renders an account of £24 13s. 4d. He has paid £8 6s. 8d. and owes £16 6s. 8d.

PR 7 Henry II [1160/1], 2:

Gillebert the moneyer renders an account of £16 6s. 8d. He has paid £6 and owes £10 6s. 8d.

PR 8 Henry II [1161/2], 62:

Gillebert the moneyer owes £10.

PR 9 Henry II [1162/3], 29:

Gillebert the moneyer owes £10 but he should be sought for in Essex.

PR 9 Henry II [1162/3], 23 [*Essex and Hertfordshire*]:

Gillebert the moneyer renders an account of £10. He has paid 26s. 8d., and he owes £8 13s. 4d.

PR 10 Henry II [1163/4], 37 [*Essex and Hertfordshire*]:

Gillebert the moneyer owes £8 13s. 4d.

PR 11 Henry II [1164/5], 17 [*Essex and Hertfordshire*]:

Gillebert the moneyer renders an account of £8 13s. 4d. He has paid 10s. and owes £8 3s. 4d.

PR 12 Henry II [1165/6], 20:

Gillebert the moneyer owes £8 3s. 4d. and he is accountable in Essex.

PR 12 Henry II [1165/6], 124 [*Essex and Hertfordshire*]:

Gillebert the moneyer owes £8 3s. 4d.

PR 14 Henry II [1167/8], 37:

Gillebert the moneyer owes £8 3s. 4d. for an amercement, but he ought to be sought for in Essex.

PR 15 Henry II [1168/9], 105:

Gillebert the moneyer renders an account of £8 3s. 4d. for an amercement required in Essex. He has paid 40s. and owes £6 3s. 4d.

PR 16 Henry II [1169/70], 10:

Gillebert the moneyer renders an account of £6 3s. 4d. for an amercement sought in Essex.

PR 17 Henry II [1170/1], 8:

Gillebert the moneyer owes £6 3s. 4d. for an amercement which has been sought in Essex without success.

[Thetford: Gefrei]

PR 5 Henry II [1158/9], 13:

Geoffrey the moneyer owes 1 mark.

PR 7 Henry II [1160/1], 2:

Geoffrey the moneyer has paid 1 mark and is quit.

Northamptonshire, Buckinghamshire and Bedfordshire (later Buckinghamshire and Bedfordshire)

[Bedford: Tomas]

PR 6 Henry II [1159/60], 37:

Thomas the moneyer renders an account of 100s. He has paid 53s. 4d. and owes 46s. 8d.

PR 7 Henry II [1160/1], 11:

Thomas the moneyer owes 46s. 8d.

PR 9 Henry II [1162/3], 15:

Thomas the moneyer has paid 20s. and owes 2 marks.

PR 10 Henry II [1163/4], 30:

Thomas the moneyer owes 2 marks.

PR 11 Henry II [1164/5], 22:

Thomas the moneyer owes 2 marks, but he has fled to Scotland.

PR 13 Henry II [1166/7], 104:

Thomas the moneyer owes 2 marks, but he has fled to Scotland and is dead.

Sussex

[Bramber: Orgar]

PR 7 Henry II [1160/1], 13:

Orgar the moneyer renders an account of 20s. He has paid the knights of Pevensey 20s., and he is quit.

[London: Wulwin]

PR 6 Henry II [1159/60], 56:

Wulwin the moneyer renders an account of £4 6s. 8d. He has paid 6s. and owes £4 0s. 8d.

PR 7 Henry II [1160/1], 13:

Wulwin the moneyer owes £4 0s. 8d.

PR 9 Henry II [1162/3], 13:

Wulwin the moneyer has paid 18d. and owes 79s. 2d.

PR 10 Henry II [1163/4], 3:

Wulwin the moneyer owes 79s. 2d.

Wiltshire

[Bath: Alvred]

PR 5 Henry II [1158/9], 40:

Alvred the moneyer renders an account of £10. He has paid 100s. and owes 100s.

PR 6 Henry II [1159/60], 18:

Alvred the moneyer renders an account of 100s. He has paid it and he is quit.

[Salisbury: Vin(e)man]

PR 5 Henry II [1158/9], 40:

Wineman the moneyer renders an account of 5 marks. He has paid 40s. and owes 2 marks.

PR 6 Henry II [1159/60], 17:

Wineman the moneyer renders an account of 2 marks. He has paid it and he is quit.

[Wilton: Willem; also in *Cross-and-Crosslets* class A]

PR 5 Henry II [1158/9], 39:

William the moneyer renders an account of 10 marks. He has paid 5 marks and owes 5 marks.

PR 6 Henry II [1159/60], 18:

William the moneyer owes 5 marks.

PR 8 Henry II [1161/2], 13:

The sheriff renders an account of 5 marks for William the moneyer. He has paid 10s. and owes 56s. 8d.

William the moneyer owes 56s. 8d., but he does not remain in the county.

PR 10 Henry II [1163/4], 14:

William the moneyer owes 56s. 8d.

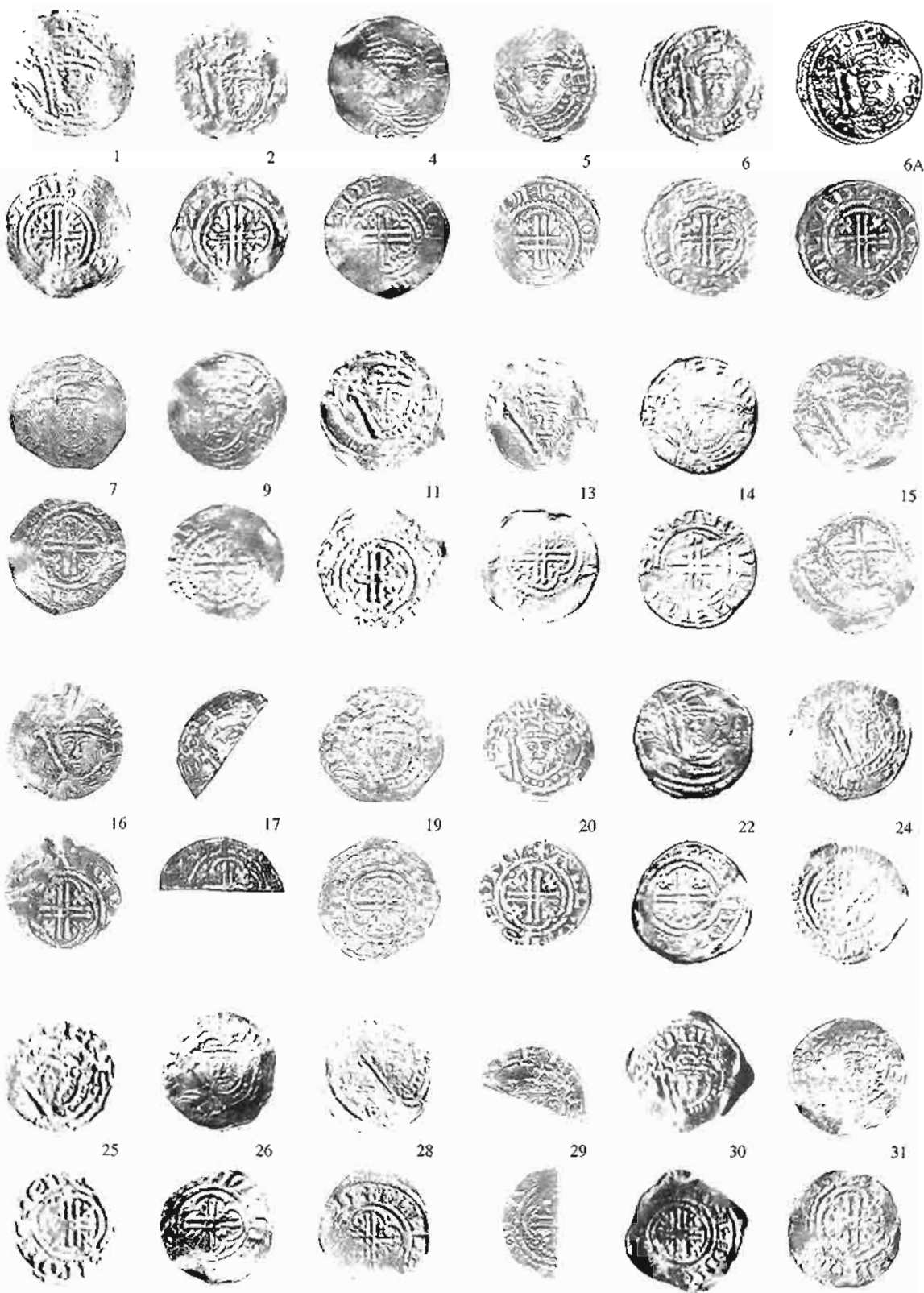
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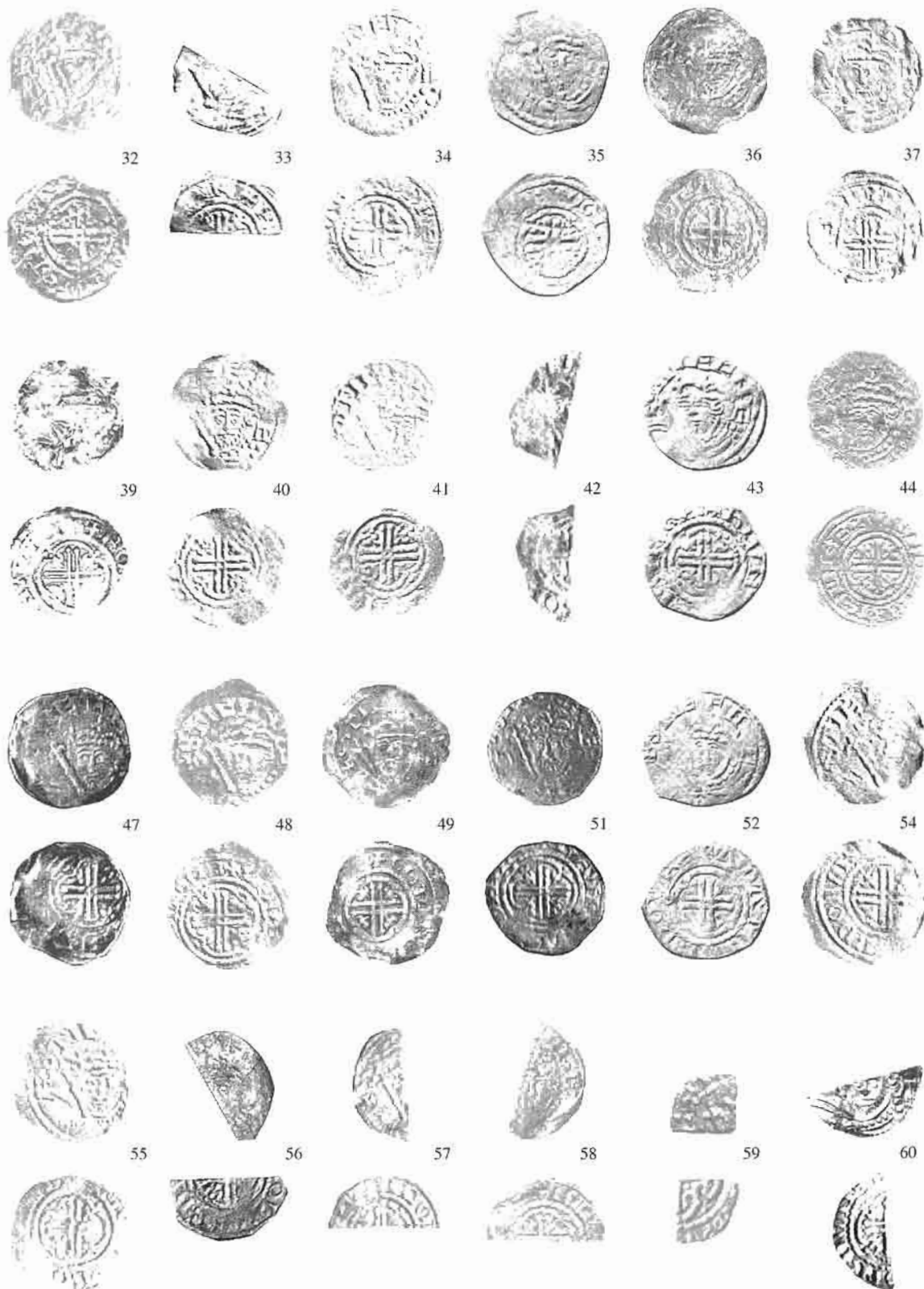
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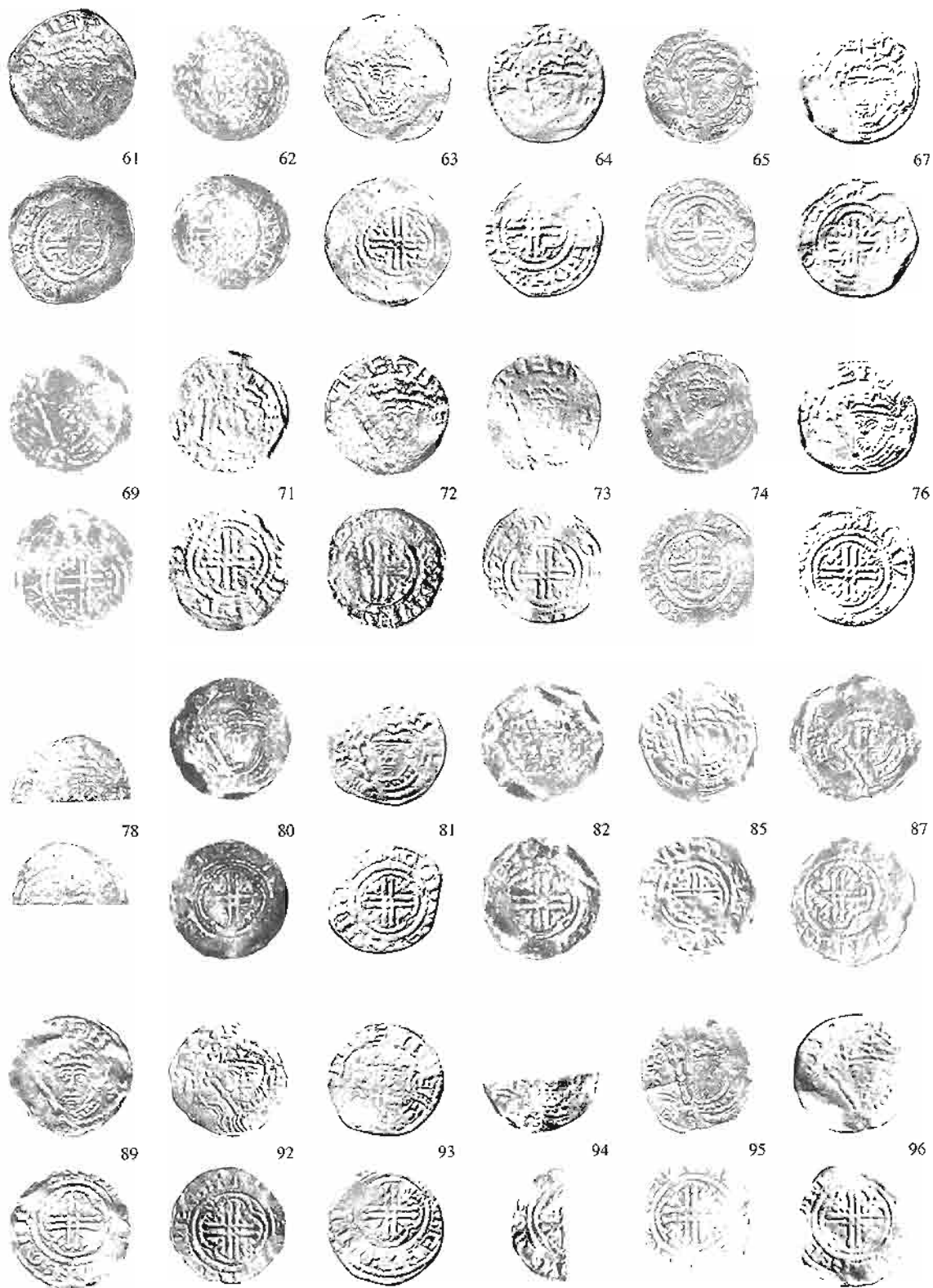
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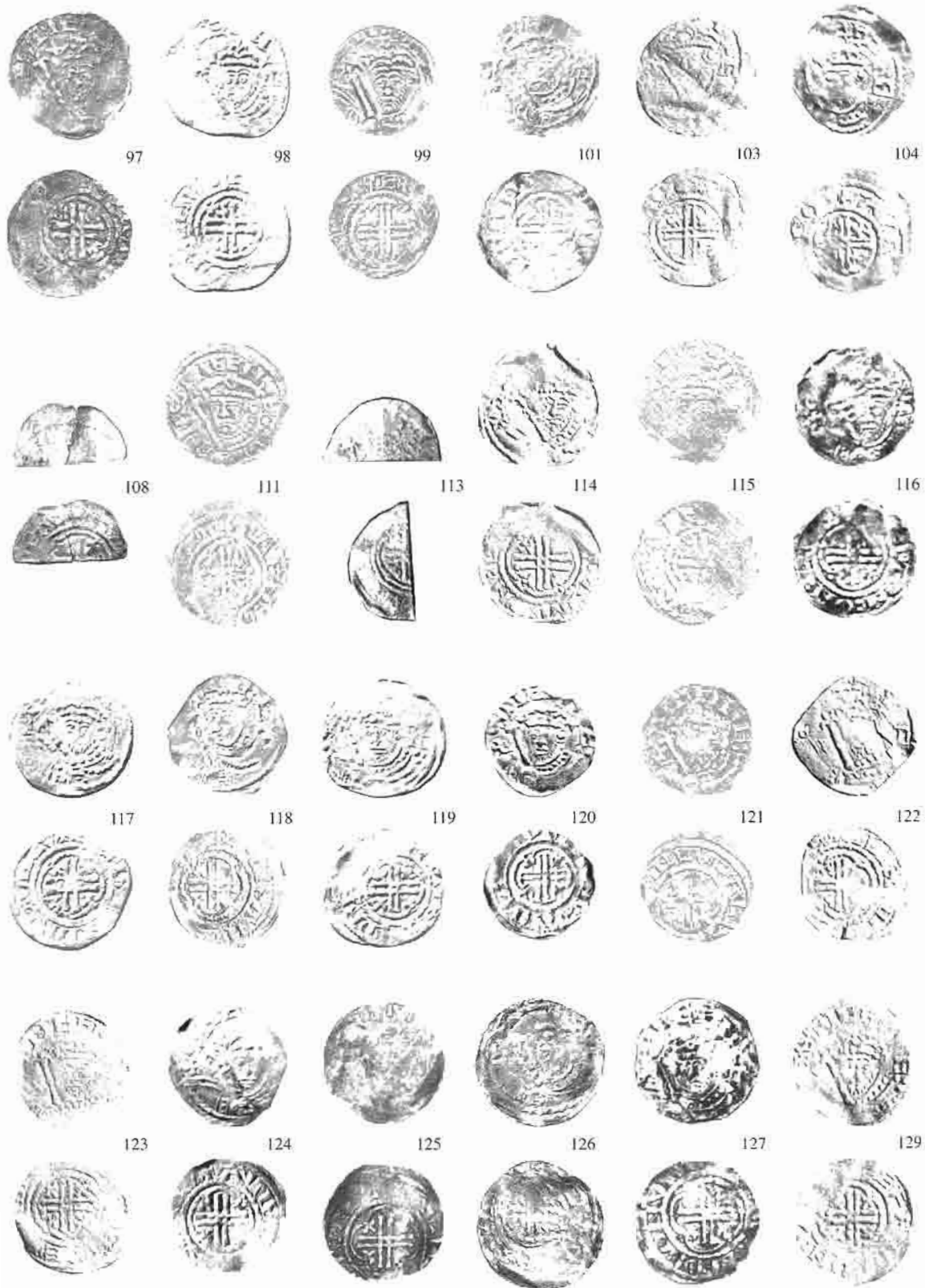
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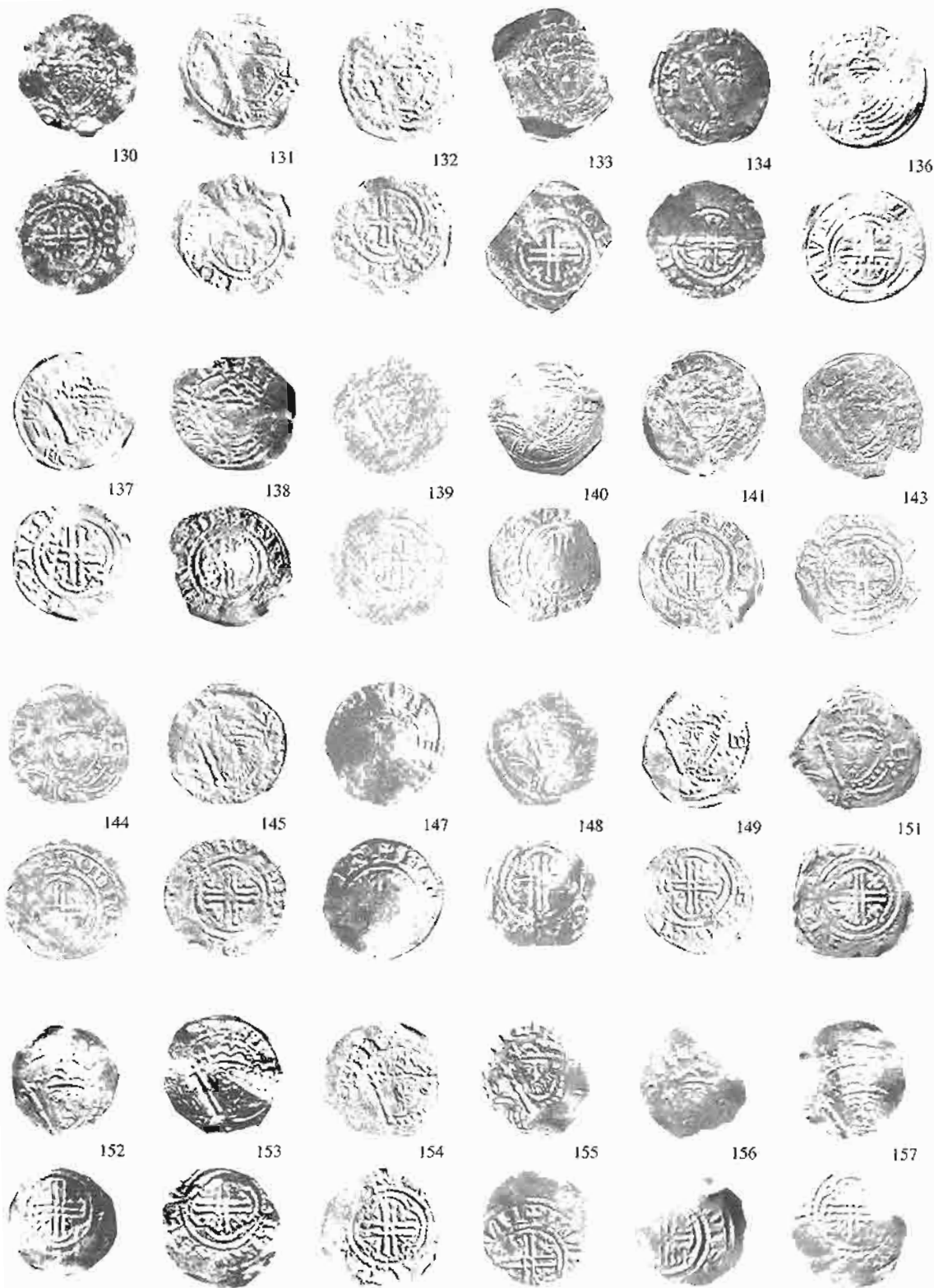
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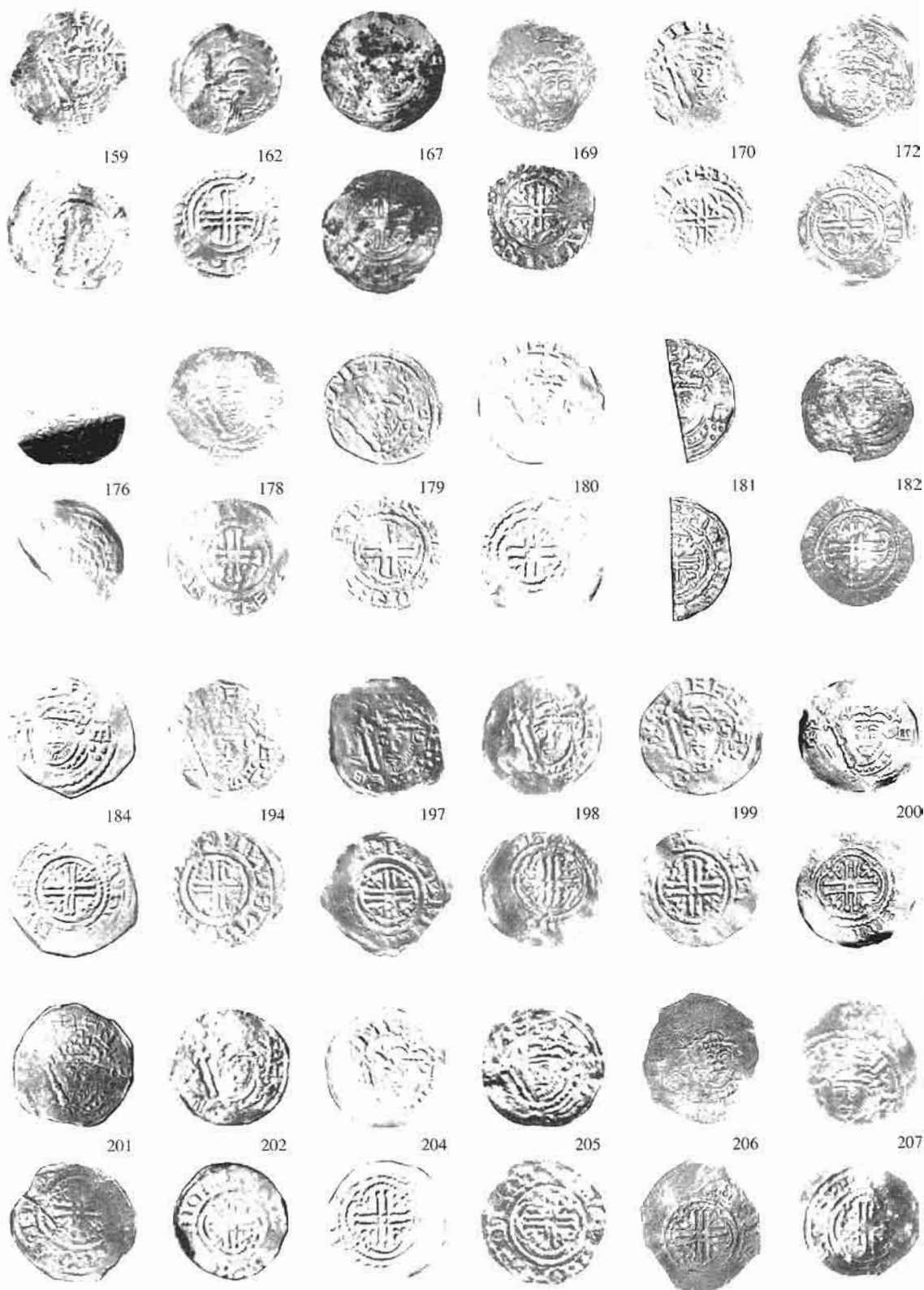


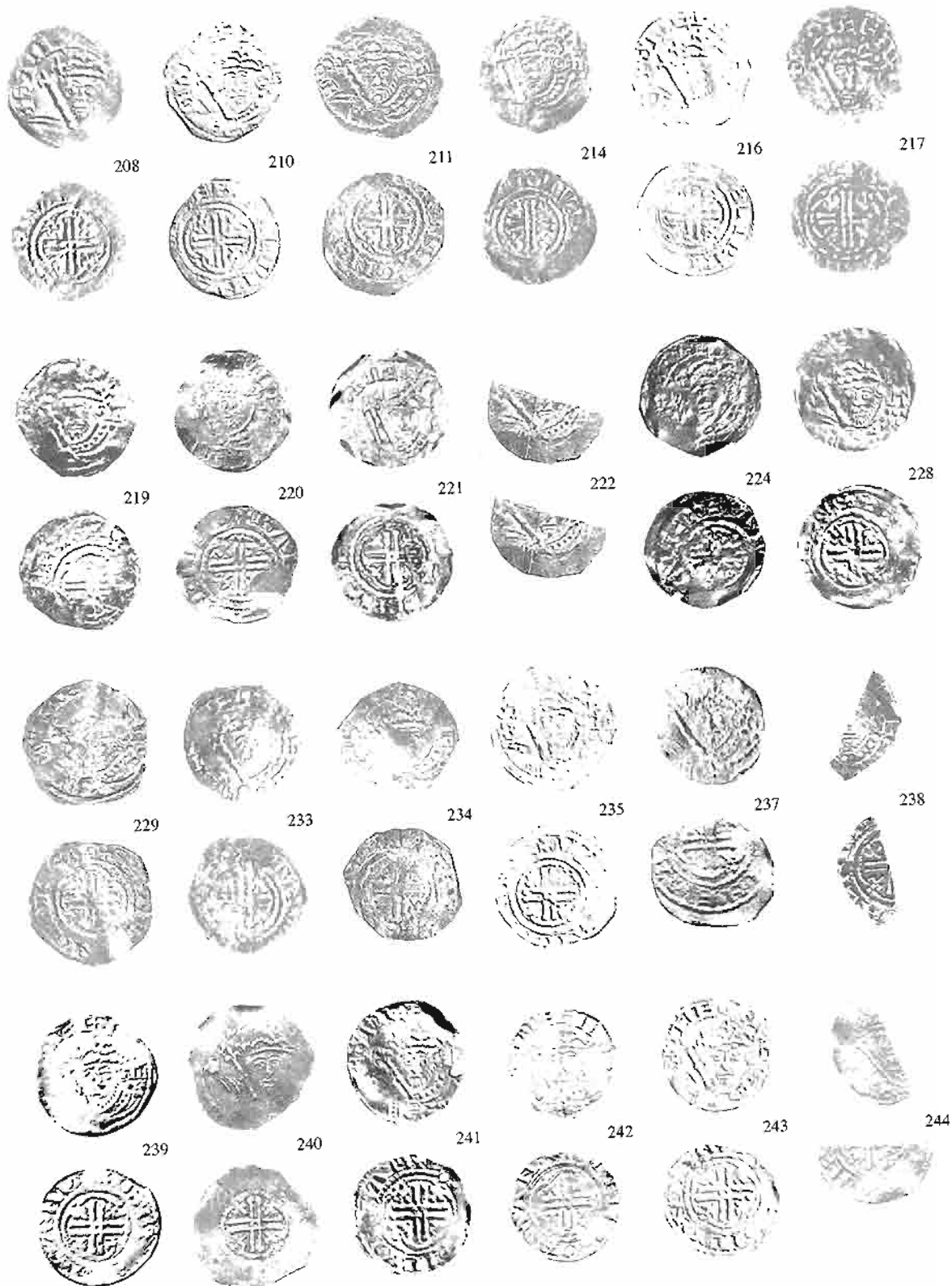


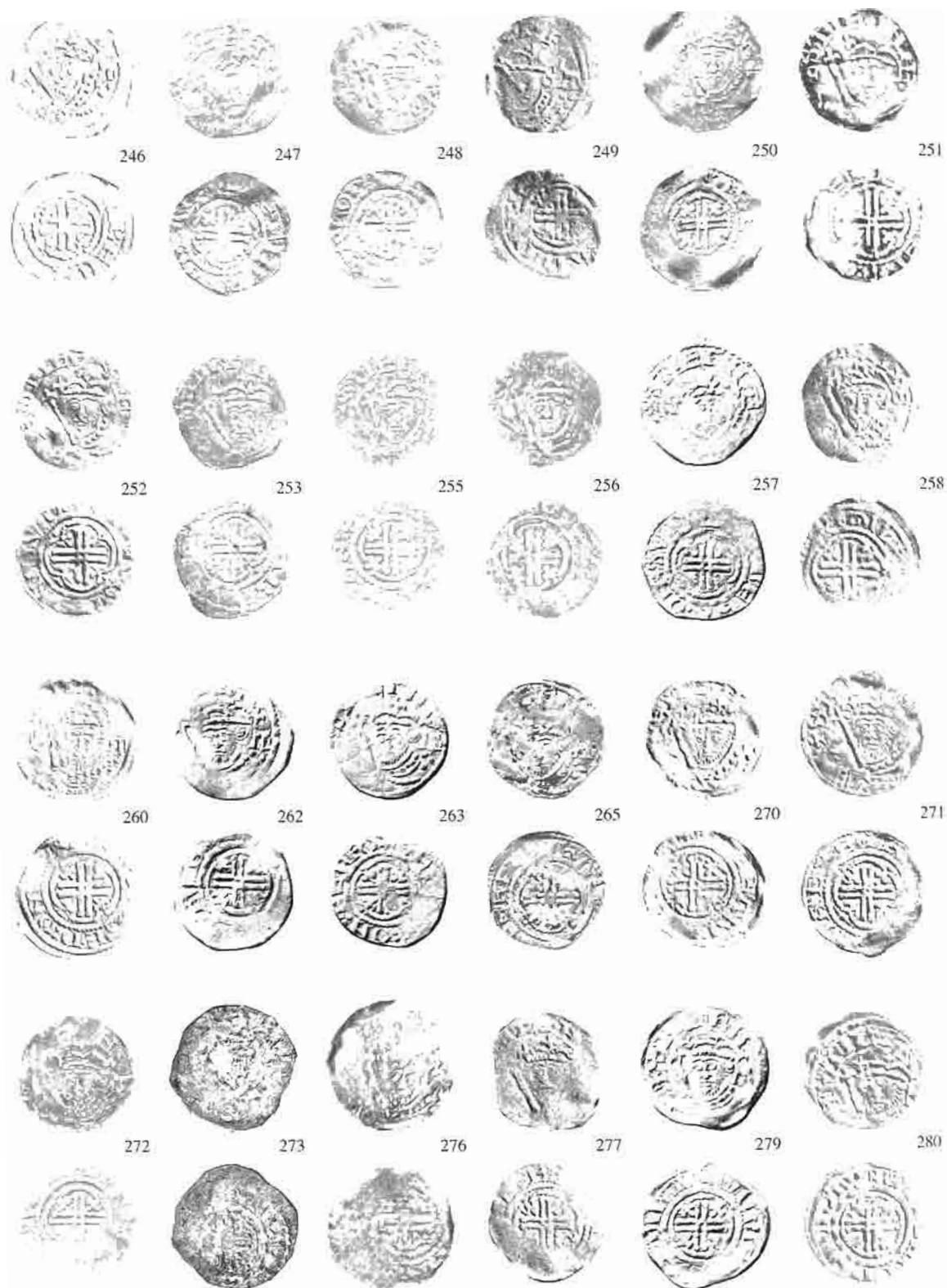


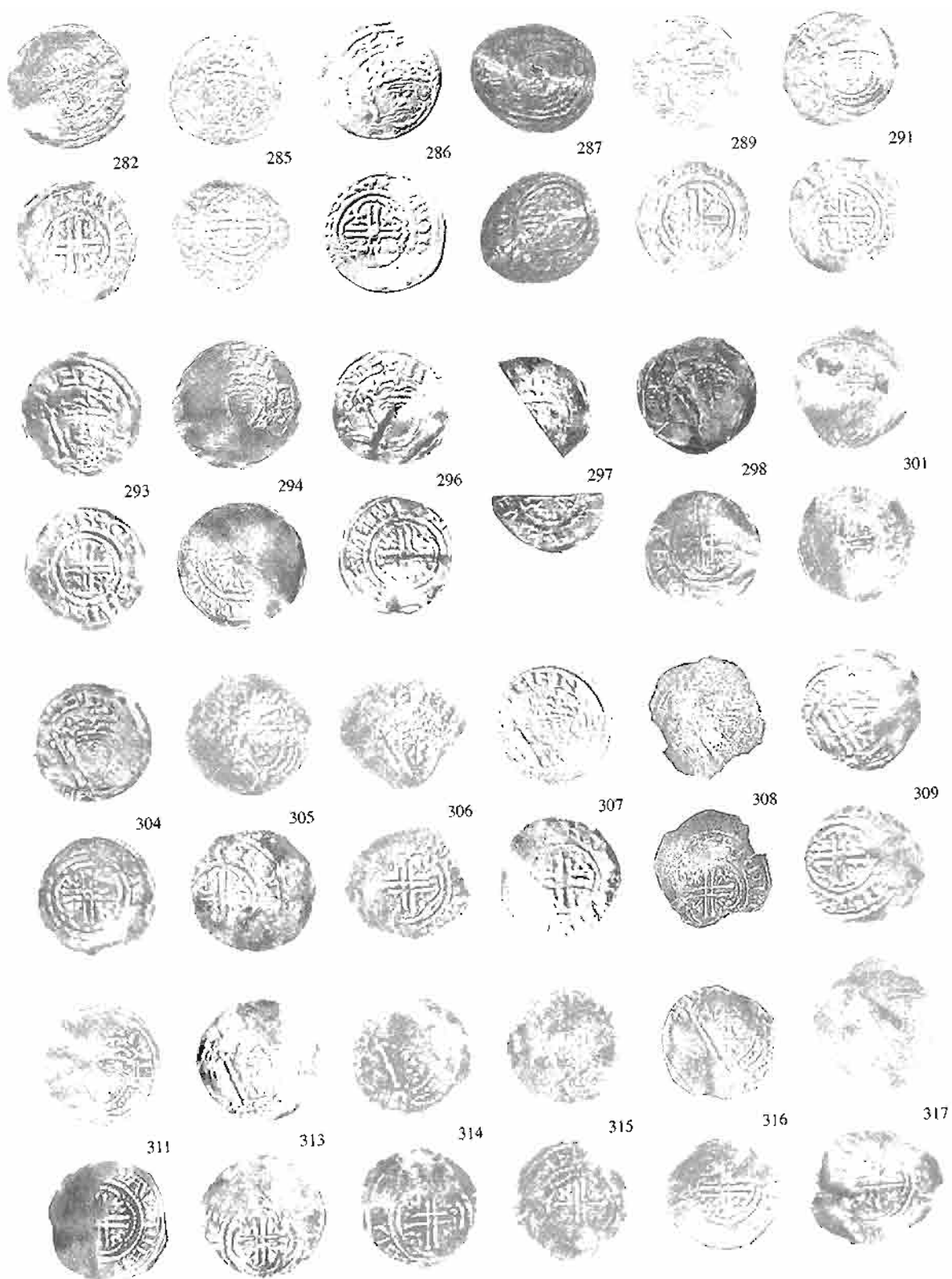




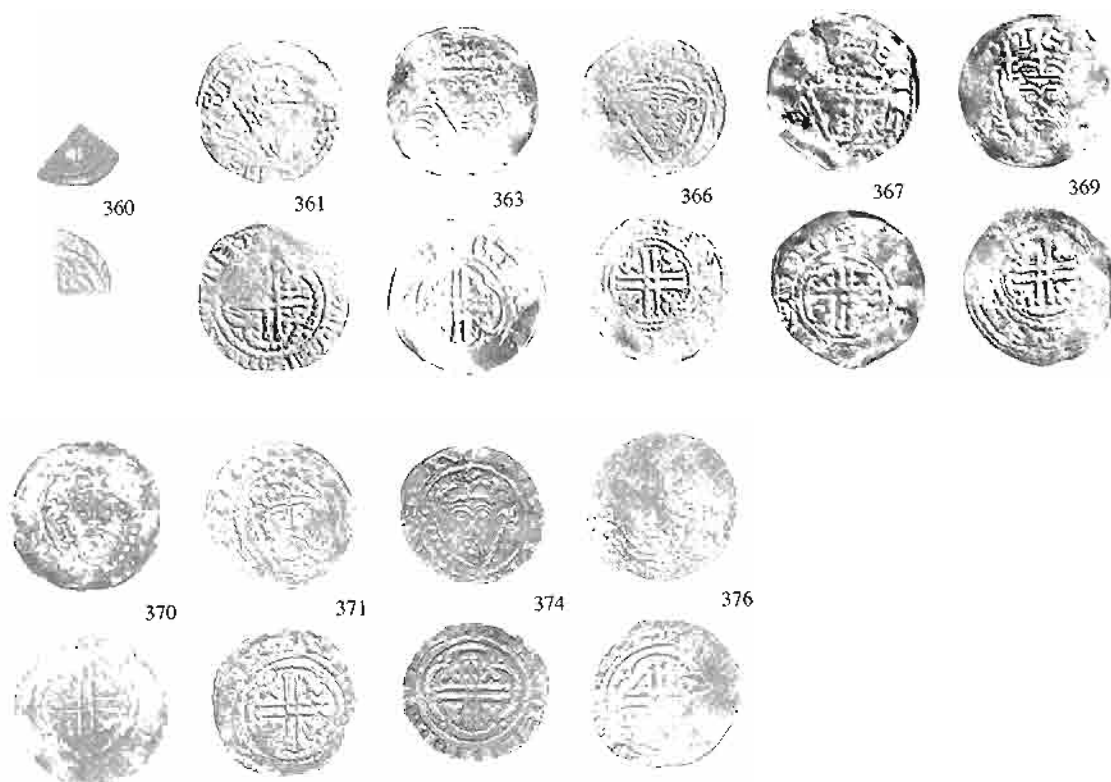












OFFICIALS AND MONEYES AT THE TOWER OF LONDON IN 1433

JESSICA FREEMAN

THROUGH the careers and personalities of certain individuals it is possible to explore something of the political, civic and social world in which the mint officials and moneyers of the Tower of London operated during the early decades of the fifteenth century. I have explained previously that my interest in these officials and moneyers working at the Tower arose through my thesis, which looked at those who participated in the local government of fifteenth-century Middlesex.¹ They ranged from justices of the peace, drawn from the gentry elite, to the yeomen and artisans who served as jurors before them; from members of Parliament, with an annual income of at least £20, to the forty shilling freeholders who were among those entitled to attend the Parliamentary hustings, and elect two 'knights' to represent them in the House of Commons. These men then attested to the validity of the election through an indenture returned into Chancery. However, as Crown servants, moneyers not only had exemption from payment of certain taxes, but were also freed from the burden of service as jurors at the county court, and thus are not usually to be found attending the hustings. This means that they seldom appear in these Parliamentary records, except that in 1472, out of a total of forty-eight known attestors, eleven men (23 per cent) can be identified as moneyers at the Tower of London who lived in and around Shoreditch in Middlesex.² Their appearance in 1472 can probably be explained by the political situation, for the master-worker then at the Mint was William, Lord Hastings, the king's most trusted councillor. It is likely that Hastings took appropriate measures, through the attendance of at least eleven of his mint workers at the Hustings, to ensure the due election of Sir Roger Ree and Sir Robert Green, two strong Yorkists and knights of the royal household, as members of Parliament for Middlesex.

Since the publication of my original article, I have come across another snapshot of the coiner community, of some forty years earlier, and it is at these men that I would now like to look. By doing so I hope to illuminate the background against which the Mint at the Tower of London functioned.

Early in Henry VI's reign, in December 1433, a list was drawn up setting out what was evidently considered to be the Mint's establishment at the Tower of London.³ Henry Somer, then warden of the Exchange in the Tower of London, had been sent a writ ordering him to supply the names of workers of the Mint and other ministers in his service, almost certainly because the Exchequer wished to verify those who were exempted from paying tax as Crown servants. However, it is curious that this is the only such enrolment that has so far been found among these Exchequer papers (E159), even though, of course, taxes were always being collected. There had, however, been one distinctive tax – on knight's fees – in 1428 and it is possible that because this tax was unusual, Henry Somer was careful to have his answer officially recorded. The list reads:

Henricus Somer *custos cambii Regis* [Warden of the Exchange]

Willelmus Russe *magister monete* [Master of the Mint]

Johannes Hexham *campsor assaiatorum* [Assayer] *et contrarotulaturum* [Keeper of the Counter-roll/comptroller]
monete Regis

¹ Freeman 2000.

² Calendar of Patent Rolls 1467–77, 138–9, 313–15; The National Archives [hereafter TNA], PRO, C219/17/2. The moneyer attestors in 1472 were John Herryonge, William, Richard, John and Robert Hert, William Austen, William Sharpe, William Redec, John Rydec, Nicholas Toller and Thomas Sharp.

³ TNA, PRO, E159/210, Recorda rot. 43d. I owe this reference to Dr David Grummitt.

Johannes Orewell sculptor cunneorum [Engraver of the dies] *Regis*

Ricardus Herte senior	Thomas Savage
Johannes Hille	Hugo Sharpe
Johannes Margarete	Ricardus Lambard
Nicholaus Clerk	Willelmus Hyon
Johannes Aleyn	Ricardus Purdon
Johannes Everard	Ricardus Herte junior
Willelmus Brokke	Valentinus Toller
Johannes Chambre	Ricardus Fygge
Johannes Haveryng	Thomas Astoon
Johannes Hereyong	Thomas Sharpe
Ricardus Pykeron	<i>monetarii</i>

Thus there were four officers and twenty-one moneyers or coiners responsible for producing the finished product, the coinage, at the Tower of London. The four officers represented separate facets of contemporary administration: two were Crown servants who, at different levels were part of central and royal government, while the other two were members of one of London's greatest livery companies, where their more immediate concerns would have been the City and trade.

To start at the top, the Warden of the Exchange, the place where new coins were issued and bullion purchased for the Mint, was Henry Somer, a member of Parliament on six occasions, five times for Middlesex and once for Cambridgeshire. At the time aged about sixty, he was an important royal official – nowadays a very senior civil servant indeed – who accumulated numerous posts and a great deal of money and land during a career which covered half a century and four reigns.⁴ Little is known of his background, but it is likely that kinsmen at the courts of Edward III and Richard II helped Henry Somer to his first appointment when, as a young man in 1393, he was granted an annuity of £5 a year as a royal servant. In 1399 Henry Bolingbroke deposed his cousin Richard and took the throne as Henry IV, but Somer survived to rise in a series of Exchequer posts, where he was notable as one of the first laymen to act as clerk to the treasurer. This is important because it represents a shift by the Crown in preferring laymen rather than clerics as holders of offices in central government, particularly in the Exchequer.⁵ The Exchequer was part of the palace of Westminster along the river Thames, and lay off the Great Hall, at the heart of royal government. In 1408 Somer was deputy treasurer, in 1410 Chancellor of the Exchequer (which passed permanently into the hands of the laity), and within the next three years he was appointed to the lucrative keepership of the Exchange and Mint. These would have been challenging years, for Henry IV's reign was marked by expensive military campaigns against rebellious barons and the Welsh and Scots, and there was a perennial lack of money. Ten treasurers struggled to balance the books, but none succeeded, and the king and his servants had constant battles with the House of Commons over grants of taxes and customs dues. It was the king's right to control the issue of coins, which he did through his mints in London and the provinces and, for a time, Calais. But in March 1413, aged just forty-seven yet worn out and wasted by disease, the king died, and was succeeded by his eldest son Henry V, not only an exceptional soldier (his war against the French culminated in the battle of Agincourt in 1415), but also an able administrator.

Not surprisingly, the new king's chosen advisors were not those of his father, led as they were by an older generation, including Archbishop Thomas Arundel, Somer's patron, whose influence was already in decline. Henry V's main supporters, his brothers and his Beaufort half-uncles, Henry, Bishop of Winchester, and Thomas, later Duke of Exeter, were from the 'opposition' party in Henry IV's reign, and this placed Somer in a vulnerable position even before the old king's death. He was accused of misuse of public funds in February 1413, enquiries which were resumed at the first Parliament of the new reign. He was removed as Deputy Treasurer and one week later massive sureties of 10,000 marks were given by Somer himself and a group of important men, including seven London merchants, that he would 'stand and wait' to answer the charges at the

⁴ Roskell, Clark and Rawcliffe 1992, iv, 400–4.

⁵ Grummitt 2003, 149–62.

end of the next Parliament. But such an ambitious and able administrator was unlikely to be out of office for long, and the charges were either disproved or dropped. Somer was confirmed as Chancellor of the Exchequer and as Warden of the Mint, and remained in office when Henry V's early death in 1422 brought his year-old son, Henry VI, to the throne. The country was then governed by a council of regency until young Henry came of age in 1437. Somer eventually resigned on grounds of age in 1439, when he was probably over seventy.

Somer is that rare medieval figure of whom something is known of his personal qualities, for he was a friend of a well-known poet and literary figure of the time, Thomas Hoccleve, who however had to earn his living as a clerk in the Privy Seal Office. Hoccleve's works include an unusual amount of autobiographical material and within this he left a portrait in words of 'Glad cherid Somer', who was known for his charm and conviviality: 'Thankid be thy freendly governance, And thy fressh look of mirthe and of gladnesse.' Both men belonged to the celebrated 'court of good company', a group of Exchequer and other royal officials who met regularly to dine and drink at the Temple (probably the Middle Temple), sometimes to excess. Hoccleve's poems were, however, often written with a purpose: on one occasion he reminded Somer that he had promised the members of the 'court of good company' a fine dinner on May day, over which he would preside. In another poem Hoccleve asked that his arrears of pay be forthcoming for although the Privy Seal clerks were paid an annuity, they also gained an additional income from fees and favours.⁶ Thus, as Somer had depended on his own patron, Archbishop Arundel, so others in turn looked to him for patronage and help.

Apart from his friendship with Hoccleve, and the literary interests that this implies, Somer was evidently known to Geoffrey Chaucer, who authorised Somer to collect his pension for him in June 1400 when he was ill. Like Chaucer, Somer moved in the highest royal and political circles: Thomas, Earl of Lancaster appointed him one of his attorneys when he went to Ireland in 1408, and Somer also had many dealings with Sir John Tiptoft, Speaker of the House of Commons in 1406. As might be expected, Somer married well, to a wealthy widow who was also the heiress of one of the richest merchants in Winchester, Mark le Faire. In 1405, Henry and Katherine, in an indication of their wealth and status, obtained a papal indulgence to use a portable altar and appoint a confessor of their own choice. Somer built up landholdings around Edmonton and Tottenham in Middlesex and then purchased an estate based on Grantchester, Cambridgeshire; by 1436 he is known to have enjoyed an income from land of £266 a year. However, he probably actually received two or three times this sum from royal annuities, and the rewards of office. His salary as Warden of the Mint, for example, was 2s. 6d. per day, and there were unofficial fees and 'bribes': the Exchequer also provided numerous opportunities to acquire leases, wardships and marriages on preferential terms, and to engage in money-lending, often to the king himself.⁷ Yet Somer devoted a substantial amount of his time to local affairs, sitting as justice of the peace for Middlesex for over forty-three years and subsequently for Cambridgeshire. At his death in 1450 his grandson and heir received 3,000 marks in cash, plate and outstanding debts, while his servants benefited from generous legacies.⁸

Although Somer was the nominal head of the Exchange and Mint, by this date the warden was overshadowed by the rise of the assayer-comptroller and the master-worker of the Mint, men who brought professional expertise to their posts. In 1431 William Russe, citizen and goldsmith, and thus a member of one of London's great livery companies, was the Crown's choice as Master-Worker. It was only comparatively recently that London goldsmiths had been filling this office, for earlier in the fourteenth century aliens had predominated. But in 1413 the London goldsmith, financier and influential politician Lewis John was granted the post; he was succeeded in 1422 by his fellow goldsmith Bartholomew Seman *alias* Goldbeter, and then by William Russe, followed by John Paddesley, both described as jewellers and goldsmiths.⁹ The office-holders did not always

⁶ Furnivall and Gollancz 1970, xiii, 58-9, 60, 66. The ballads have been misdated by the editor; Brown 1971, 260-81, especially at pp. 267 and 269.

⁷ Wyllie 1914, i, 171.

⁸ Roskell, Clark and Rawcliffe, iv, 400-4.

⁹ Challis 1992, 156-7, 179.

find themselves making a profit; the trouble was that the loss from the waste and the loss of weight in the melting now fell on the master-worker and not on the bringer of the metal to the Mint. In addition, the Crown appointed exchanges separate from the mints, and this accounts for the importance that Seman and Russe attached to also holding the farm of the king's Exchange in London.¹⁰

Perhaps one reason for the appointment of goldsmiths was that by the nature of their trade they had an interest in safeguarding the standard of the gold and silver which were their raw materials. Yet other events which must have deeply concerned members of the Company often passed with little comment in their own records. The depreciation of the coinage in 1411, for example, when the value of the coins struck from a pound of silver was increased from twenty-five shillings nominal to thirty shillings, is not even referred to. English currency remained undervalued in relation to foreign coins since it was of a consistently fine quality even though the weight was reduced, and there was a perennial shortage of bullion, not helped by the demands of the army in France.¹¹ In the years 1420–30, when the king accepted the Commons' petition that no metal save silver might be gilded and there was a sustained agitation about the scarcity of coin, a recoinage was forced through. The master-workers, in this and succeeding years, were goldsmiths, but the losses can be found recorded not in the Goldsmiths' books, but in those of the Drapers' Company.¹²

Russe had his own aristocratic and courtly connections, although at a commercial level. As a London alderman, he was one of the City's elite, and here his success no doubt reflected the fact that he had married the widow of his late master, the goldsmith John Whitwell. Isabel was a capable woman, apparently closely involved with both her husbands' trading activities, for her will, made after she was widowed for the second time, refers to two apprentices of her own.¹³ In 1427 William and Isabel, as executors of John Whitwell's will, were listed as creditors of Henry IV, for supplying 'necessaries of the chamber and garderober', and in 1432 Russe and John Paddesley, his successor as master-worker, valued the plate and jewels of Cardinal Beaufort, seized at Sandwich on the orders of Humphrey, Duke of Gloucester. In 1439, John Cheseham, one of William Russe's executors, received £662 in settlement of a debt due by John, Duke of Bedford (who died in 1435), and at his own death Russe was also owed in excess of £336 by Charles, Duke of Orleans, a prisoner in England since 1415.¹⁴ These debts could have been for actual goods supplied or, perhaps more likely represent loans, with Russe's main business activities centering on banking and money-lending.

During these years Russe would have seen the emergence of one of London's major political disputes of the fifteenth century, which was led by a dissident member of the ruling oligarchy, Ralph Holland, a member of both the Drapers' and Tailors' Companies. Holland was elected as Russe's fellow sheriff in 1429, so that year they must have worked closely together, although just three years previously Holland had been committed to prison for criticising London's mayor, only being released on bail of £100.¹⁵ Russe's career in civic politics followed a more conventional pattern. In 1433 he was elected alderman of Bread Street ward, and thereafter attended meetings and elections, provided sureties for fellow citizens and was one recipient of a gift of goods and chattels by a London widow, in effect a chattel-mortgage, probably in connection with a business transaction.¹⁶ Shortly before his shrieval election, Russe had become one of four wardens of the Goldsmiths' Company and during the next few years took on three apprentices. Then in September 1431 came his appointment as Master-worker of the Tower, Calais, York and Bristol Mints, and farmer of the king's Exchange in London. He paid 100 marks a year for the Exchanges, meeting all expenses and providing his own cash float, i.e. the working capital. All his ten sureties

¹⁰ Reddaway 1975, 305 & 115; Challis 1992, 174–5; *Rotuli Parliamentorum*, iv, 177b; *Calendar of Patent Rolls* [hereafter CPR] 1416–22, 407.

¹¹ Bolton 1980, 73–5.

¹² Reddaway 1975, 110, 112.

¹³ Guildhall Library [hereafter GL], London, Commissary Court of London will, MS 9171/3, f. 393.

¹⁴ *Rotuli Parliamentorum*, iv, 324a; Stratford 1993, 180, 421, 423.

¹⁵ Barron 2004, 148–50.

¹⁶ Beaven 1913, ii, 7, i, 47; Sharpe 1909, 266; Sharpe 1911, 116; Thomas 1943, 241.

were goldsmiths, each bound in £100, whilst Russe gave £2,000. During his tenure gold coins denominated at 6s. 8d. (the noble), 3s. 4d. and 1s. 8d. were struck, and silver coins of 4d. (the groat), 2d., 1d., halfpenny and farthing.¹⁷

However, Russe cannot have been in good health for in the summer of 1433 he made two wills and a codicil and had died by July 1434, probably still a relatively young man. From both his will and that of his wife Isabel, we know there was a private chapel in his house and that the establishment included a chaplain, cook and several servants; Russe also remembered his surgeon with a modest legacy. Much of his cash and recoverable debts were bequeathed to his London churches of St Michael Cornhill and St Katherine Creechurch to found chantries (that is, to say masses for the dead), and to maintain the fabric and altars.¹⁸ His chantry within St Michael was still in existence in 1450, when the church kept certain monies in 'Russes cheste', complete with four locks and keys.¹⁹ The church also received a luxury item, a cope embroidered with pearls and with the nine orders of angels. His time at the Mint and Exchange of London was recalled by a small bequest to the parish church within the Tower, but otherwise his will mirrors the usual concerns of London's mercantile elite. He left legacies to kinsmen, to the various orders of friars, to fraternities supporting poor priests and parish clerks, to the inmates of London's prisons, hospitals and lazaret-houses and, in the sentimental bequest favoured by London's merchants, towards marriage portions for poor maidens. Further legacies, including the repair of highways around London, depended on recovering 'desperate' debts owed by the Duke of Orleans and the executors of Richard Whittington, one-time mayor of London.²⁰ In a reminder that the war against France was still ongoing, his widow Isabel was assessed in 1436 to pay 6s. 8d. towards the costs of the troops sent by London to Calais, under threat from the French after the defection of Burgundy. She died the following year. Like her husband, many of her bequests were to churches, particularly in Sussex, probably her place of origin; and, following in her husband's footsteps, Isabel appointed her cousin, William Sydney esquire and later knight, one of her executors.²¹

Thirdly, there was John Hexham, the Assayer, Campsor or Comptroller. Assaying had always been significant, but had lately grown in importance, for 'accurate determination of fineness was crucial both for the initial purchase of the bullion and for quality control of newly struck coin.'²² Apart from regular checks on production it was usual for samples of new coin to be tested before issue, that is on delivery by the Mint, as well as at the more formal and ceremonial Trial of the Pyx. Surviving assay rolls show that most samples corresponded with the standard. Hexham also tested the blanks for weight before passing them on to the moneyers. From the time of Edward I the Assayer had had to keep a counter-roll, recording the amounts of bullion purchased in the Exchange and passed to the Mint. He arbitrated in disputes about fineness, and also kept an eye on both the warden and the master-worker.²³

John Hexham was a contemporary of Henry Somer and, like him, a royal servant, but of lesser eminence. Again, his origins are obscure, although he may have come from Hampshire or Sussex.²⁴ He had probably joined the king's service by October 1399 if he was the man then granted maintenance from the Abbey of Hyde by Winchester.²⁵ His way of life as a young clerk working his way up the ladder was no doubt similar to that described in verse by his fellow clerk, the poet Hoccleve: commuting from his lodgings to his office at Westminster on foot or by boat on the Thames. At Westminster he would have ate and drunk at one of the many cook-shops and

¹⁷ Reddaway 1967; Challis 1992, 709.

¹⁸ Sharpe 1889-90, ii, 482-3; GL, MS 9171/3, ff. 385-385v and 393.

¹⁹ Sharpe 1889-90, ii, 527-8 (will of John Lufkyn).

²⁰ Russe was a member of the Parish Clerks' fraternity, James and James 2004, i, 9.

²¹ Jefferson, 2003, 482; GL, MS 9171/3, f. 480.

²² Challis 1992, 152.

²³ For the assay of five forms of silver money by Hexham on 27 October 1432, and trial of the pyx by William Russe, 1 December that year, see *CPR 1429-36*, 256, 258-9; Challis 1992, 153-5.

²⁴ John Hexham was co-executor for the parson of Havant, Hampshire, in 1416. The same year Henry fitzJohn of London and Beatrice his wife conveyed to John Hexham and Joan his wife, one-third of the manor of West Thorney, Sussex; in the early 15th century Walter Fuyst and Joan his wife, widow of John Exham of Chichester, were sued in Chancery over the rent of the manor of Notebourne, Sussex. *VCH Sussex*, iv, 195; PRO, C1/9/337.

²⁵ Calendar of Close Rolls [hereafter CCR] 1399-1402, 101.

taverns serving the workers and visitors and then in the evenings gathered with his friends to drink in the ale-houses and eye up the girls.

Yet his experience was not confined to Westminster for, described as the 'king's clerk', Hexham travelled extensively between 1417 and 1443. In these twenty-six years he attended, in a clerical capacity, at least ten musters of men-at-arms and archers at Barhamdown, Gravesend, and other Kentish ports before their embarkation to France. It was at these musters that the soldiers were formally inspected and their names set down. On nineteen occasions he was one of those commissioned to 'arrest' ships in the port of London, and at Sandwich and elsewhere along the coast, to carry troops and supplies from England to Aquitaine, Normandy and Ireland. His accounts for the payment of mariners to convey commanders and their retinues to France still survive.²⁶ Hexham would have met all the prominent military leaders of the age, not just Henry V and his brother John, Duke of Bedford, but those of Henry VI's reign, such as Humphrey, Duke of Gloucester, Richard Beauchamp, Earl of Warwick, Richard, Duke of York, John Talbot, Earl of Shrewsbury and John Beaufort, Duke of Somerset. Reflecting his financial expertise, he was appointed Escheator for Sussex and Surrey in 1432, and in 1439 he served on the same commission as William, Earl of Suffolk and Sir Ralph Cromwell, the king's treasurer, to enquire into evasions of the king's rights.²⁷ His career was thus concerned with financial and audit control on the Crown's behalf, and these were the skills which he brought to the Mint and Exchange.

However, few royal rewards apparently came his way. In 1432 Hexham surrendered a manor back to the king after holding it for only two months, and in 1433 a royal grant for twenty years of another manor near Winchelsea (Igham [?Icklesham] by Winchelsea) was annulled after just two years.²⁸ But shortly beforehand he had acquired a wealthy bride, Agnes, the heiress daughter of Thomas Hayton, who brought substantial lands in Kent and Surrey with her; their income increased by one-third when Hayton's widow died in 1434 and her dower reverted to Agnes. But by 1450 Hexham was dead for, although no will has survived, in that year Agnes remarried for the third time.²⁹

The fourth member of the Mint establishment in 1433, the Graver of the dies, was John Orwell, also a goldsmith, although probably older than Russe. He was one warden of the Goldsmiths four times between 1426 and 1456, took on thirteen apprentices during his working life and was busy in the Company's affairs, such as acting as arbitrator. Orwell had an early financial connection with the Exchequer, for he and Robert Day were deputies to Sir Roger Salvayn (died 1422) when he was Treasurer of Calais in 1413, although the Mint there closed in 1411, not reopening until 1422. It then became in effect an outlying branch of the London Mint.³⁰

Appointed Graver to the Tower and Calais Mints in November 1431, some of the early issues of Henry VI's reign were probably engraved by him. Engravers by now had become more involved with the preparation of the punches since very little incising was needed in this way of working. Orwell received a salary of £20 a year together with a house in the Mint at the Tower, a condition of service due to the high security required. Orwell was succeeded in November 1445 by Thomas Withiale, his apprentice in 1439 and so only recently freed, who, however, had his master arrested for debt. Orwell was either exceptionally long-lived, or else he has been confused with a namesake, possibly his son, for a goldsmith of this name did not die until 1473, when the Engraver would have been almost ninety years of age, since he was apprenticed as long ago as 1402. Whatever the case, in a will dated 1473 a certain John Orwell left a house at York, no doubt his place of origin, to the monastery of St Mary without the Walls there, while his house on Cheapside went to the Goldsmiths Company, subject to heavy annual charitable payments.³¹

²⁶ CPR 1416–22, 1422–9, 1429–36, 1436–41 and 1441–6, *passim*; TNA, PRO, E101/51/7 & 10: 54/4.

²⁷ CPR 1436–41, 314–15. The Escheator was the official who collected feudal dues owed to the king.

²⁸ Calendar of Fine Rolls [hereafter CFR] 1422–30, 84–5; CPR 1429–36, 329; his co-grantee on both occasions was George Trome.

²⁹ CFR 1422–30, 77–8, 166, 197, 226; CCR 1429–35, 149, 276–7; *VCH Surrey*, iii, 256. Thomas Sayer was Agnes' third husband; by her first husband, Thomas Carew, who died 31 October 1430, Agnes had two daughters, Mercy the wife of Richard Ford, and Joan, the wife of William Sander.

³⁰ Wylie 1914, i, 42; Challis 1992, 152; Jefferson 2003, *passim*.

³¹ Reddaway 1975, 300; Forrer 1902–30, iv, 327; Challis 1992, 155–6.

On the subject of the dies, there had once been an official known as the keeper of the dies, but the post and salary disappeared in the early 15th century when it was absorbed in the warden's duties. Before then it seems to have been a sinecure, granted for life, with a salary of 6d. a day. In 1404 John Barnardcastle of West Smithfield in the parish of St Sepulchre without Newgate was imprisoned in his house by a gang of ruffians, and so 'did not dare to attend to the business of the lord king in his office of keeper of the dies of the king and constable in the said county as much as for his own business'. He, or a namesake, had held this office of '*custos cuneorum Reges infra Turrin*' since at least 1382, served as a bailiff of the king and on the commission to collect the tenth and fifteenth for Middlesex in 1407, was a Parliamentary attestor, and in addition carried on his own business as a brewer.³²

Lastly on the 1433 list there were the twenty-one moneyers and, if this followed contemporary practice of naming in order of importance, then Richard Herte senior was their Provost, or chief officer and warden. As noted above, because they were Crown servants, the moneyers working at the Tower of London had exemption not only from payment of certain taxes, but also from attendance at the county court. However, their appearance as Middlesex attestors in 1472 confirms that coiners as forty shilling freeholders formed part of a Parliamentary franchise sufficiently wide to make the elections the concern of more than simply the gentry. It suggests that the more prosperous yeoman and artisan – such as a coiner – was considered to have a legitimate interest in who represented him in the House of Commons and who, on his behalf, agreed to grants of taxation and the passage of new statutes.

In identifying these coiner attestors of 1472, I suggested that the Company of Moneyers had probably originated in a fraternity, dedicated to St Mary the Virgin, and attached to the church of St Leonard Shoreditch. At this time the parish lay outside the city of London and, therefore, outside the regulatory control of the civic authorities. However, there is little surviving evidence as to who was a moneyer, for they were not paid directly by the Crown, but were responsible to the Master-worker – in 1433 William Russe – through their chosen representative, the Provost, by whom they were organised and from whom they received their wages. Thus moneyers seldom appear in official Tower records, and their own Company archives have not survived before the later sixteenth century. It is only through other sources, such as wills, enrolled deeds, and, in particular, Exchequer records, that their names are revealed.³³ The first mention I have found of the Company itself is in 1457 when, in his will, in which he describes himself as 'coynour', John Aleyn of Shoreditch left 6s. 8d. to '*communi pixidis mistere mee de conours*' ('the common box of my craft of coiners').³⁴

A comparison of the moneyers listed in 1433 and 1472 shows that five of the names on the earlier list – Austen, Harryonge, Herte (Hart), Sharpe and Toller – appear on the later list. Many families provided moneyers for a century or even longer. John Havering, for example, was no doubt descended from Ralph Haveryng, coiner in 1347. Six generations of the Hert family can almost certainly be traced from William le Hert in 1340–1 to Richard Hert in 1472. In 1336 a grant of land at Shoreditch was witnessed by John, Roger and William Hert, and by Hugh Herican or Heriong, while Ralph Herihung was a witness at Hoxton before 1260. John Harryonge, probably a descendent of William Herionges, one of the '*monetarii Regis*' of 1346–7, via one of the men of that name who were moneyers in 1371, was a prominent figure amongst the coiners from 1452 to 1472, as was his contemporary Richard Hert.³⁵ The bequest of a gold ring in February 1485/6 by Johanna Underhill, widow of Islington, to Margery, wife of Robert Harryonge of Hoxton, 'provest', is the first written evidence that the Shoreditch moneyers were an organised group with a recognised leader who had a specific title.³⁶

Although invariably drawn together because of their location (although Thomas Austen lived in Hackney), moneyers were by no means all cast from the same mould: they had differing careers,

³² PRO, KB9/193, m.4b; E179/141/27; KB9/185/1, m.47; CFR, 1405–13, 93; PRO, C219/10/6; Moore 1918, ii, 57.

³³ Ruding 1840, ii, 466. For a listing of moneyers, see Freeman 2000, 74–82.

³⁴ GL, MS 9171/5, f. 228v. Aleyn left a son William, of whom nothing is known, whilst his wife Johanna, the widow of Nicholas Wightmore, had predeceased him. Aleyn's executors were John Rawlyn, chapman, and John Harryonge, coiner.

³⁵ Freeman 2000, 76–8; British Library: Addl. Charter 40489; Forrest 1922, 81.

³⁶ GL, MS 9171/7, f. 74.

and were of varying degrees of wealth. The abovementioned John Aleyn, for example, listed on subsidy exemptions from 1414 to 1453, went to France in 1443 in the retinue of John Langton, treasurer of Calais. In his will he was sufficiently prosperous to leave instructions that his executors were to sell all his lands and tenements to pay his legacies and then to put the remainder towards pious and charitable uses.³⁷ John (atte) Hill revealed in his 1458 will the growth in material possessions of English yeomen and artisans: he bequeathed his daughter Clemence his best maser or drinking bowl, with a boss in the middle, his 'belle cuppe' of standing silver, and a great horn bound with silver and set on two silver-gilt feet. Richard Lambert of Islington was not so affluent, but could still refer to 'two of my best gowns', two silk belts bound with silver, an otter pelt, and leave twenty shillings towards the repairs of the well standing near his house.³⁸

Only occasional glimpses appear of the lives led by the moneys. In a much later dispute (of 1589) over the ownership of two houses in Shoreditch, Richard Austen, moneyer, perhaps a descendant of the 1472 William Austyn, deposed that forty-two years ago these cottages had been used as places of 'merreymen and to make good Cheere' by the parishioners. It was, said Richard, 'accompted a Credytt by many in those days' to belong to the brotherhoods of St Christopher and St James, and of Our Lady, and to 'spend their monneys amongst them'. Another moneyer witness, Thomas Haddon, said that in past times the houses had also provided lodgings for a schoolmaster nominated by the vicar and parishioners of Shoreditch to keep a school in the parish.³⁹ Most moneys would have belonged to these parish brotherhoods, including one particularly associated with the Moneys' Company, and they probably also attended the parish school.

Coiners had their brushes with the law. Richard Purdon, 'coynour' of Shoreditch, together with a clerk, Robert Martyn, were presented by a jury in 1449 for placing a post in the middle of the king's highway at Tollers Lane, a road leading from Shoreditch towards Stepney, and thereby obstructing the traffic. This lane may well have been named after another family of moneys who included John Toller of London, moneyer in 1379, Hugh Toller, 'money-maker' in 1397, John Toller and Nicholas Toller, moneys in 1428 and 1453–56 respectively, as well as the Valentine Toller in the 1433 list.⁴⁰

This brief look at four officials of the Mint and Exchange at the Tower of London who were in office in 1433 shows that they were drawn from men with wide experience of both royal and civic government and with definite areas of expertise. However, although the warden was responsible for matters affecting the Mint, the three other officials were independent of him, so that there was a constant check on the trustworthiness of each office holder. Further down the ladder, the moneys themselves had a background of involvement in parish life and local administration. Overall, the problems of the Exchequer, the lack of money and scarcity of bullion, the continuous wars with France leading to the raising of armies and the supply of ships, artisan discontent within the City of London and rebellious barons within the realm, provided a social and political background against which the Mint and Exchange had to function.

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³⁷ Freeman 2000, 68–70 (Aleyn should not be confused with his near contemporary, the goldsmith John Aleyn); GL, MS 9171/5, ff.228v–229.

³⁸ TNA, PRO, PROB 11/4, ff. 97–97v; GL, MS 9171/4, f.82.

³⁹ TNA, PRO, E134/31E12/East18, mbs 1–4.

⁴⁰ TNA, PRO, KB 29/80 rot. 31d; Freeman 2000, 81–2.

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A PASS FOR THE 'BIRMINGHAM THEATRE', 1774

DAVID SYMONS

THE pass published here (Fig. 1) was donated to Birmingham Museum and Art Gallery by Mr A.L. Carr of Birmingham and catalogued into the Museum's collections as accession number 2003.356. It can briefly be described as:

Obv. WE SHALL NOT LOOK UPON HIS LIKE AGAIN·

Draped bust of Shakespeare right; below the bust, I·W·F·

Rev. FREE TICKET / FOR / BIRMINGHAM / THEATRE / 1774·

Engraved in space above this, *M^r / Faulconbridge*.

Struck in copper, diameter 32 mm, 16.51 g, 0°.

The type was described by Davis and Waters, who interpreted IWF as the signature of the Birmingham engraver John Westwood, and indeed the obverse of this pass is closely based on Westwood's obverse die for the medal for Garrick's Shakespeare Jubilee celebrations at Stratford-upon-Avon in 1769.¹ Specimens of this pass are rare: it was apparently unrepresented in the museum's collections and this was the first example that the author had seen in twenty-five years as a curator in Birmingham (but see p. 320).

Theatres in Birmingham before 1774

This is not the place to go into the history of the theatre in eighteenth-century Birmingham in any detail – indeed there is still a great deal of work to be done on this subject – but it is clear that theatrical performances of some kind go back to at least the early years of the century.² Hutton records the construction of a theatre in Moor Street in about 1740. This may have been the first purpose-built theatre – Hutton's wording suggests this, although some later commentators maintain that it was converted from another use.³ In 1751 there was a sea-change in the Birmingham theatre, when 'a company arrived, who announced themselves "His Majesty's Servants, from the theatres royal, in London ..."'.⁴ The company was so well-received that a larger theatre was built in King Street in the following year, and the famous actor Richard Yates served as manager for that and several subsequent seasons.⁵ The King Street Theatre was so

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¹ Davis and Waters 1922, 1, nos 7–8. The die engraver is John Westwood senior; his career is conveniently summarised in Dykes 1999, 179–86. Dykes also reproduces (as p. 181, Fig. 7) illustrations of Garrick's medal. An advertisement appeared in *Art's Birmingham Gazette* (hereafter *AG*) for 23 August 1769 advising customers that the medal would be published on 30 August and that 'Ladies and Gentlemen may have them either in Cases for the Pocket, or with Pendants for the Bosom' (Dent 1880, 144). Dr Dykes has kindly compared photographs of the pass to the specimen of the Garrick medal in his possession and confirms that they are certainly struck from different, not re-cut, dies. He has also pointed out that this pass must have been one of Westwood's last die-sinking commissions.

² Dent 1880, 56 suggests that they may have taken place even earlier, but offers no evidence to support this. William Hutton, Birmingham's first historian, talks of theatrical performances being offered before 1730 in 'a shed of boards in the fields', then in a 'performers' booth', and finally in 'something of a stable in Castle-street' (Hutton 1781, 125). Since the entrance charge for the Castle Street theatre was 3d a head, it is doubtful if the entertainment provided was of a particularly elevated kind.

³ Hutton 1781, 125. Cunningham 1950, 11, and Price 1988, 1, both maintain that the Moor Street theatre was a conversion.

⁴ Hutton 1781, 125. The contemporary custom was for theatrical companies to move out into the provinces when the London theatres closed for the summer – usually from late May/early June to mid-September (Cunningham 1950, 11). Birmingham, with a population of 22,688 in 1751, and rapidly growing, must have been an attractive prospect (population figure from Samuel Bradford's plan of 1751; see Dent 1880, 145–6).

⁵ Hutton 1781, 126; Cunningham 1950, 14; Price 1988, 1. The King Street Theatre opened with a Shakespeare Night and a Concert of Vocal and Instrumental Musicians. Admission charges were 3s. for a Box seat, 2s. for the Pit and 1s. for the Gallery, and these became the norm for Birmingham theatres for the rest of the century. For more about Yates, see n. 10 below.



Fig. 1. The 'Birmingham Theatre' pass, 1774, produced for use at the New Street Theatre, Birmingham (reproduced by permission of Birmingham Museum and Art Gallery).

successful that the one in Moor Street was forced to close in 1764 and the building became a Methodist chapel.⁶

The King Street Theatre was unchallenged for a decade, but in 1773 there was clearly talk in the air of founding a new theatre. *Aris's Birmingham Gazette* of 31 May of that year carried a notice headed 'A Caution', which warned that 'many respectable Manufacturers in this very populous and Important Town' considered 'the Exhibition of Plays ... as extremely prejudicial to the Manufactures carried on here; having a Tendency to promote Negligence, create Expense, and corrupt the Morals of the Industrious'. It also threatened that the said Manufacturers would lay before the magistrates any offences committed against the Acts of Parliament designed to prevent theatrical performances. This notice soon drew a sharp response in favour of plays from another correspondent.⁷

The first recorded step towards the foundation of the new theatre was taken at a meeting at the Swan Inn, on Tuesday, 10 August 1773, of 'the Subscribers for building a New Playhouse in the Town of Birmingham'. (The use of share subscriptions to fund the construction of a new theatre was well-established by this time: The Queen's Theatre, Haymarket was founded in 1705 through the issue of thirty shares at £100 each, while more recently the theatre in Bath had been funded through twenty shares at £50 each.)⁸ At the meeting it was agreed that an approach be made to William Inge about the possibility of leasing from him some land along New Street (known as Greenwood's Cherry Orchard) and a committee of seven men was named 'to carry this Scheme into Execution'.⁹ At a series of subsequent meetings the lease on the land was agreed and agreements were prepared between the Subscribers as a body and two of their number as individuals. Thomas Saul, a builder, undertook to construct the theatre, which was to be ready by June of the following year, at an estimated cost of £1500, while Richard Yates, the actor-manager, who we have already encountered at the King Street Theatre, was to lease the theatre.¹⁰ On 8 March 1774 it was 'Order'd that Mr Saul be desired to be as expeditious as possible in the finishing of the Playhouse according to a Model he this day produced ...', and by 1 June it was

⁶ Price 1988, I. Under the 1737 Licensing Act it was illegal for any individual to perform an 'Interlude, Tragedy, Comedy, Opera, Play, farce or other entertainment of the Stage ... for hire, gain or reward' unless the performance was approved under letters patent from the crown or had been licensed by the Lord Chamberlain (Moody 2000, 16). To get around this, unlicensed theatres offered musical concerts, for which they charged, but which also included plays performed for free by the players 'for their own amusement'. Such concerts could be licensed by local magistrates under the Disorderly Houses Act of 1732. (Crompton Rhodes 1924, 7-8; Cunningham 1950, 13-14; Moody 2000, 17. According to Moody, this legal fiction was devised by Henry Giffard, who reopened the Godman's Fields theatre in London in 1740 on this basis.) There were only two 'patent houses', theatres licensed by the crown – the Theatres Royal at Drury Lane and Covent Garden, in London (Lynch 1953, 2-3).

⁷ Langford 1870, 274-5.

⁸ Lowndes 1922, 17-8.

⁹ *List of Proprietors for Building a Playhouse in New Street, Birmingham with Minutes of their Meetings*, BCL Lee Crowder coll. 387, 2r. [hereafter *Minute Book*]. The Swan Inn, in High Street, was one of Birmingham's main coaching inns at the time (Dent 1880, 108). Greenwood's Cherry Orchard can be found on Westley's 1731 plan of Birmingham, which is conveniently reproduced in Dent 1880, facing p. 66.

¹⁰ *Minute Book*, 3r.-3v.; Cunningham 1950, 20. Saul held one of the thirty shares in the theatre, while Yates had two. Yates had not been associated with the King Street Theatre since at least 1762 (Cunningham 1950, 15). For Yates's career on the London stage, see *DNB* XXI, 1216-19, although the entry manages to make no mention of his long connection with Birmingham. There is also an obituary in *AG* of 25 April 1796, recording his death on 21 April at the age of 84, and describing him as the 'Manager of the Summer Company of Performers' in Birmingham from 1750 until 1792. According to *DNB* he died 'it is said, in a fit of rage at being unable to obtain eels for his dinner'.

possible for the Subscribers to meet at the 'Birmingham New Theatre' for the first time.¹¹ Less than three weeks later, on 20 June 1774, the new theatre opened to the public for the first time.

The 'Birmingham Theatre': King Street or New Street?

It will be apparent that by 1774, the date on our pass, Birmingham boasted two theatres, the old one in King Street and its new rival in New Street. In contemporary parlance both were usually referred to by their locations, while both were also known for some time after they opened as 'the new theatre'.¹² Neither was normally referred to as the 'Birmingham Theatre', so to which did this pass belong? Fortunately this question is fairly straightforward to answer.

Hutton notes that 'In 1774, the theatre in King-street was enlarged, beautified, and made more convenient; so that it had few equals' (probably, one suspects, in the face of the challenge from its new competitor).¹³ A study of *Aris's Birmingham Gazette* for 1773-5 shows that the last advertisement for the 1773 season at the King Street Theatre appeared in the issue dated 6 September.¹⁴ The theatre was used for entertainments for a few days over the Christmas season,¹⁵ but it then vanishes from the pages of the *Gazette* until its reopening is announced on 29 May 1775.¹⁶ Throughout 1774 the only theatre to be advertised in the *Gazette* is the New Street Theatre, and the pass must therefore be attributed to that institution.

Thomas Faulconbridge, a forgotten 'worthy'

Now that we have identified to which theatre the pass belonged, can we say anything about the Mr Faulconbridge, to whom it is named? An initial search of the trade directories revealed that he was probably to be identified with Thomas Faulconbridge, merchant, who appears in the directories between 1770 and 1781, although they do not reveal the precise nature of his business.¹⁷

A search of the various indices held by the Birmingham City Library revealed only two other references to Thomas Faulconbridge. The first dates to 1768, when he was the assignee under a Commission of Bankruptcy of a lease of six properties in Coleshill Street,¹⁸ and the second is his obituary in *Aris's Birmingham Gazette* in 1783, which simply notes:

DIED. On Thursday last, at his house at summer-hill, Mr Faulconbridge, Merchant in this Town, after a lingering illness.¹⁹

We have no information about his career prior to 1768, and so know nothing about where and when he was born and how old he was when he died in 1783. Was he a Birmingham man by birth, or had he, as seems likely, migrated to the town as so many of his contemporaries had done?²⁰ However, as the research into the New Street Theatre progressed, it became clear that Faulconbridge was a much more significant figure, both for that theatre and for Birmingham in general, than these skimpy notices might suggest.

¹¹ *Minute Book*, 4r. and 5r.

¹² Price 1988, 2 has misunderstood these references and says that the New Street Theatre was originally called 'The New Theatre', but this is not the case.

¹³ Hutton 1781, 126.

¹⁴ Those attending were promised 'A comedy (not acted these three years) called THE BUSY BODY ... To which will be added a Pantomime Entertainment, interspersed with Songs and Dances (for the third Time) called THE WIZARDS OF THE ROCKS; OR HARLEQUIN FROM THE MOON ... The whole to conclude with a grand Dance by the Country Lads and Lasses.'

¹⁵ AG 20 December 1773; there was a play by Henry Fielding, 'The Comedy of the Miser', with a musical entertainment called 'The Chaplet', on 27 December, and a Ball 'for the young Ladies and Gentleman under the Tuition of Mr Burton' on 28-29th.

¹⁶ Langford 1870, 276. The King Street Theatre's new season began on 5 June with a tragedy, 'The Distrest Mother', and a ballad opera, 'The Devil to Pay' or 'Wives Metamorphosed'. Both theatres were in action the following week, with 'The Merchant of Venice' and 'The Virgin Unmask'd' at King Street, while New Street offered the tragedy 'Braganza' and a musical entertainment called 'Thomas and Sally'.

¹⁷ Faulconbridge, Freese and Co., of 18 New Hall Street, in 1770 (*Sketchley's Guide*), 1774 (*New Birmingham Directory*), and 1775 and 1775-6 (*Swinney's Directory*); Thomas Faulconbridge, of 2 New Hall Street, in 1777 (*The Birmingham Directory*); and Faulconbridge and Co., of Great Charles Street, in 1780 and 1781 (*The Birmingham, Wolverhampton ... Directory*).

¹⁸ BCL 2113.

¹⁹ AG 5 May 1783. He would have died on 1 May.

²⁰ Some of the more famous in-comers included James Watt senior, the engineer; William Hutton, the historian; and Joseph Priestly, the scientist.

Faulconbridge was among the group of Subscribers who met at that initial meeting at the Swan Inn on 10 August 1773, and was one of the seven men nominated then to form a committee to carry the scheme forward.²¹ He was assiduous in his duties, attending all the meetings until the theatre opened and acting as chairman on at least one occasion. His enthusiasm for the project is also revealed by the earliest surviving list of shareholders, since he is one of just four of them to hold two shares in the theatre, one of the others being the theatre's actor-manager lessee, Richard Yates.²²

Even before the theatre opened the Subscribers decided, at a meeting held on 1 June 1774, to build new houses on the vacant land to each side of it, at a maximum charge of £20 against each share. Once again Faulconbridge was named to the committee established to oversee this project.²³ However, although the decision to build these houses was taken in 1774, it seems that construction did not actually start until 1780 (see below, p. 319). (Given his important role in the foundation and running of the New Street Theatre, it is something of a puzzle why Faulconbridge's name appears on a copper version of the pass, when we know that specimens were also struck in silver, which would surely be a more appropriate medium for a Subscriber's pass.²⁴ Is it possible that this might be a free ticket given out by Faulconbridge, rather than his own pass? Sadly we know nothing about how these passes were used in Birmingham and at present can do no more than note the problem.)

As well as taking a leading part in establishing the new theatre, Faulconbridge was also one of those behind the drive to clean up and modernise the town. There is a very good chance that he was the T.F. who wrote a long letter to *Aris's Birmingham Gazette* early in 1769 arguing in favour of a local Improvement Bill which was then before Parliament.²⁵ Certainly, when the legislation was passed later that year, Faulconbridge was named as one of the fifty-strong Board of Commissioners established to carry out its provisions. Among his colleagues on the Commission were Dr John Ash, the founder of the Birmingham General Hospital, Dr William Small of the Lunar Society, Samuel Garbett, a businessman who would be commissioned in 1782 to investigate 'the state and charge of the management of the [Royal] mint',²⁶ John Baskerville the printer, and Samuel Lloyd the banker.²⁷ The Commissioners were responsible, among other things, for keeping the streets safe and clean, and for providing street lighting.²⁸ Gill records that Faulconbridge acted as chairman at meetings of the Commissioners more frequently than anyone else, but that for some time 'around 1780' his attendance fell off, although he did later reappear.²⁹ Hutton provides one possible explanation for Faulconbridge's temporarily reduced involvement with the Commission, since he records that he served as High Bailiff for the town in 1779.³⁰

²¹ *Minute Book*, 2r. His colleagues on the committee were Richard Goolden, Joseph Green, Dr William Small, Samuel Steward, John Taylor junior, and Thomas Wight.

²² Each share represented an investment of £50, a considerable sum in the 1770s. The list of shareholders appears on 1r. of the *Minute Book*. From internal evidence the initial list of names there is probably to be dated to before 1 June 1774, but it also notes changes that cannot be earlier than 1 February 1777 (based on evidence in the documents relating to share transfers preserved in BCL Lee Crowder Coll. 421). In addition to Faulconbridge and Yates, the initial shareholders included Matthew Boulton, his partner John Fothergill, and Samuel Aris, the owner of the *Gazette*. From the documents in Lee Crowder 421 and other sources it is possible to say that the other shareholders also included several gentlemen and esquires, a clergyman, a lawyer, two other merchants, a silk mercer, a confectioner, a grocer, and a builder.

²³ Faulconbridge's colleagues this time were Edward Palmer, Daniel Ruston, Samuel Steward and Thomas Wight. The meeting on 1 June 1774 is the first that Matthew Boulton is noted as attending in person.

²⁴ Davis and Waters 1922, no. 8 is recorded as silver. See also p. 320 below.

²⁵ The letter is reproduced in full in Dent 1880, 158.

²⁶ Dyer and Gaspar 1992, 441–4.

²⁷ Dent 1880, 161, gives a full list of the Commissioners.

²⁸ This last power gave the Act its popular name, the Lamp Act, and the Commissioners were regularly referred to as the Commissioners of the Lamp Act for many years to come. To serve on the Board of Commissioners one had to own property worth £1,000 and pay at least £15 a year in rates.

²⁹ Gill 1952, 157–63.

³⁰ Hutton 1781, 93. Birmingham never obtained the status of a chartered borough during the mediæval period and legally remained a manorial village into the nineteenth century. The High Bailiff was the most important of the manorial officials. According to Hutton, his duties were 'to inspect the market, and see that justice takes place between buyer and seller; to rectify the weights and dry measures used in the manor' (Hutton 1781, 88). We may also note here that Faulconbridge was one of the subscribers to the first edition of Hutton's *History of Birmingham* (Hutton 1781, list following p. xii). He is probably also to be identified with the 'Mr Falkenbridge' who was renting property in Park Street from King Edward's School in 1771–2 (Chatwin 1951, 151).

The New Street Theatre: the early years

What sort of evening would Faulconbridge have enjoyed when the New Street Theatre opened for its inaugural performance on 20 June 1774? The show rated an enthusiastic review in the following week's *Aris's Birmingham Gazette*, which it is worth quoting in full:

Birmingham, June 27

On Monday last the new Theatre in this Town was opened with the Comedy of 'As you like it' and the Entertainment of 'Miss in her Teens'; a Prologue (said to be written by Mr Foote) was spoke by Mr Yates, which was suitable to the Occasion, and very well received by the Audience.³¹ The drawing up of the Curtain about the Middle of the Prologue, discovering a most magnificent Scene of a Palace, had a very fine Effect, and was received with a prodigious Burst of Applause. The different Parts in the plays performed this week have been well-filled, and the Performers in general met with universal Approbation. Particular Encomiums are due to Mr Columba, from the King's Theatre,³² who painted the Scenes, which are allowed to be as well executed as any in London. The Audience each Night has been brilliant and numerous, and the Theatre is built upon a most excellent Plan both for Company, and the Performers, and it does Mr Saul, the builder, much Credit. It is supposed to be as good, if not the best House in England out of London. — One Circumstance we are sorry to remark — that several of the Gentlemen that appeared in the Boxes were dressed in a very improper Manner for so conspicuous a Place, and it is recommended to them in future to pay more Respect to the Ladies, by dressing themselves in a Manner suitable to the Company, and as Gentlemen should, who appear in the Boxes.³³

The new theatre proved a success, but we know little about its activities in its first two years beyond the advertisements that appeared in *Aris's Birmingham Gazette* for the 1774 and 1775 summer seasons, since nothing is recorded in the Proprietors' *Minute Book* between 1 July 1774 and 13 June 1776.

The *Minute Book* resumes with the record of a meeting 'held at Mr Green's to prepare the incorporation deed to lay before the Proprietors for their approbation ...'.³⁴ The Proprietors clearly did approve because on the following 1 February (1777) 'the first Meeting ... pursuant to the direction of the deed of Incorporation' was held, 'Mr Faulconbridge in the chair'. The Proprietors proceeded to appoint a Committee 'to manage the Affairs relative to the said Theatre, or Playhouse ... in manner directed by the deed of Incorporation'. The members of this Management Committee were Faulconbridge (once more), Matthew Boulton, Rev. John Gaunt, Thomas Price and Thomas Wight, but within the month the Rev. Gaunt had sold his share and was replaced on the Committee by Richard Goolden.³⁵

The year 1777 was to prove eventful for the Proprietors. In February they were discussing plans to add a Coffee House to the theatre buildings. Matthew Boulton, who was once again in attendance, suggested that Samuel Wyatt of London should be asked to draw plans and elevations for the new building and the Committee agreed and asked him to deal with it, although they stipulated that the new work should cost no more than £750 'Exclusive of the Expence of the Portico' which was planned to beautify the front of the complex.³⁶ Wyatt's drawings were considered at two meetings in May, and, after renewed discussion as to whether the new building should be 'a publick Coffee Room' (a proposal carried by fifteen votes to three), it was eventually decided to go ahead using Wyatt's elevation, but basing the work on a plan by Eglinton as altered and approved by Mr Green.³⁷ The new building work was finally undertaken in 1780 and it is this façade which is shown in the engraving reproduced here as Fig. 2 and which also appeared on the medal illustrating the 'Birmingham Theatre' (i.e. the New Street Theatre) in Kempson's 1795 Birmingham buildings series.³⁸

³¹ For the text of this Prologue, see Langford 1870, 276–7.

³² The King's Theatre, Haymarket, London, opened in 1705 as the Queen's Theatre, a licensed theatre, but the acoustics were poor for speech and it came to be normally used as an opera house — The King's Opera House (Avery 1960, xxvi–xxvii; 1961, xix–xx). It is still in existence today as Her Majesty's Theatre, Haymarket.

³³ AG 27 June 1774.

³⁴ *Minute Book*, 5v.

³⁵ *Minute Book*, 6v.–7r. and 7v. Faulconbridge was to serve on the management committee until January 1783.

³⁶ *Minute Book*, 7v.–8r.

³⁷ *Minute Book*, 8v.–9r. and 9v. Wyatt was paid twelve guineas for his work (*Minute Book*, 11r.).

³⁸ Dalton and Hamer 1915, 283 nos 215–16. The portico survived until the theatre was rebuilt in 1902–4, but a medallion from the façade bearing a portrait of Shakespeare is still preserved in the Birmingham City Library (Cunningham 1950, 22). See Hutton 1781, 127 for a contemporary comment on the portico.

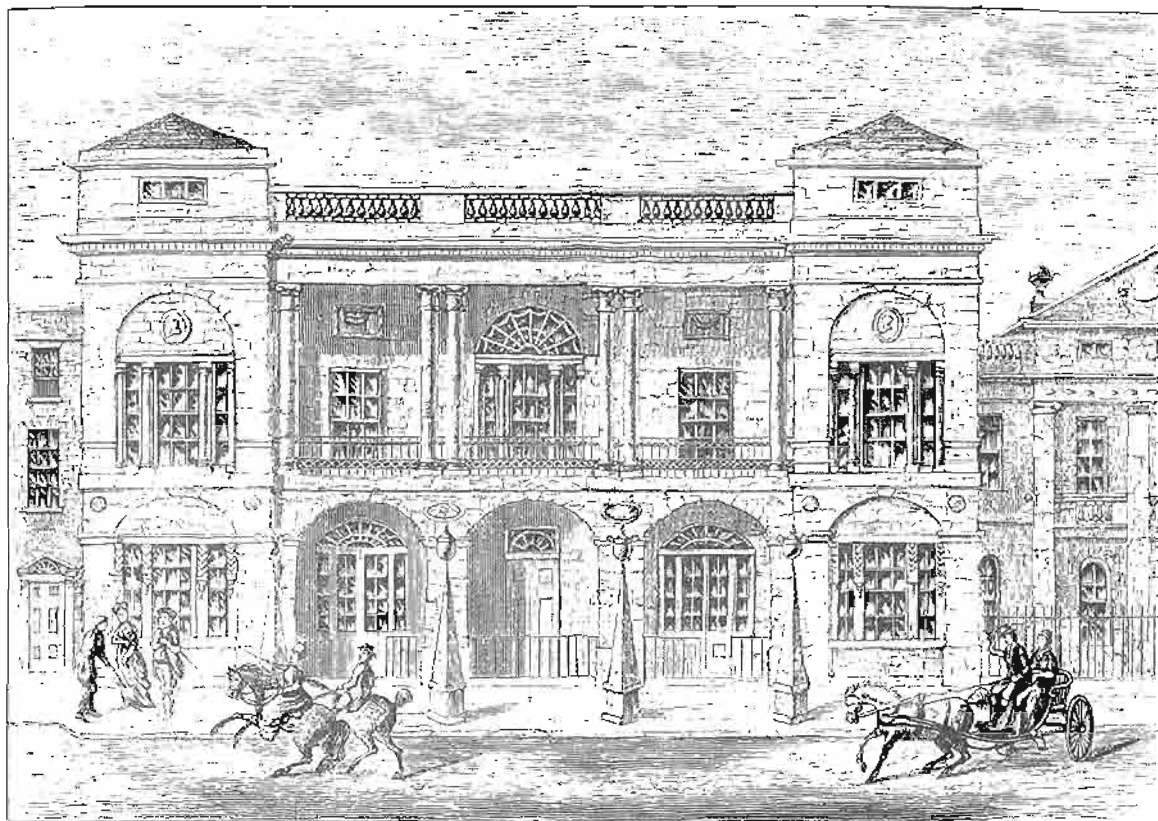


Fig. 2. The façade of the New Street Theatre, Birmingham, after the addition of the new portico in 1780 (reproduced from Dent 1880, 123).

Returning to 1777, both the King Street and New Street theatres were suddenly closed by the magistrates within a couple of weeks of the new season starting in June, and they were both to remain closed until the summer of 1779.³⁹ The precise reason for the closures requires further investigation, but it is probably related in some way to the increasingly strident rivalry between Richard Yates at New Street and Messrs Younger and Mattocks at King Street.⁴⁰ Cunningham also records a suggestion that both managements may have been paying their workmen with theatre tickets and that this had been causing great suffering and distress.⁴¹

The other major event of 1777 may perhaps help to explain why feelings were running so high between the two theatres. In February *Aris's Birmingham Gazette* reported that Richard Yates had presented 'a Petition to the House of Commons for leave to bring in a Bill to license the Theatre in New-Street, in this Town; another Petition was also presented at the same Time, signed by several Gentlemen and respectable Tradesmen, in support of Mr Yates's Petition'. The same edition also carried a notice, quite probably penned by Yates, which was obviously an attempt to head off potential local opposition by suggesting the conditions under which the theatre would operate if it was successful in becoming a 'patent theatre'. These laid down that the theatre would stage no 'Diversions, such as Rope-Dancing, Tumbling, Puppet-shows, &c.', and that the season would be limited to four months each year. The writer presumed that a 'Royal Theatre' would be acceptable under these conditions since 'it is certain nine Parts in ten of the Town are convinced that two

³⁹ Both theatres advertised in *AG* for 16 June 1777, neither were mentioned on 23 June, while the 30 June edition carried a notice for the New Street Theatre which began with the words 'The usual Amusements of the Theatre being stop'd' and went on to advertise a musical concert. They reopened in June 1779, New Street on the 16th and King Street on the 21st (*AG* 14 and 21 June 1779).

⁴⁰ Witness the vitriolic exchange of open letters between them in *AG* 23 and 30 June 1777.

⁴¹ Cunningham 1950, 15 and 21–2. There is no mention of the closure in the *Minute Book*.

Play-houses are greatly injurious'. (This must have gone down well at the King Street Theatre.)⁴² The Bill was given its first reading on 26 March, which it passed by forty-eight votes to twenty-eight, but it was then defeated by sixty-nine to eighteen at the second reading on 29 April 1777.⁴³

There is no record of any of this in the *Minute Book*, but the notes of the meeting on 5 January 1778 record that

A Petition having been presented to Parliament for leave to bring in a Bill to Licence King Street Theatre Therefore resolved that the Committee do cause the advertisement produced and read at this Meeting by Mr Faulconbridge to be inserted in the Birmingham Newspapers for calling a Town Meeting to take into consideration the propriety of that Measure And that a Petition be also presented to Parliament for leave to bring in a Bill to Licence New Street Theatre in order that the proprietors or Lessees of each Theatre may be upon an equal footing – And that the Committee do adopt any other Measure respecting this matter which may appear to them most advantageous to the Proprietors And That the Committee be and they are hereby authorized to make any call or calls of money – to defray the Expences attending to this Business.⁴⁴

The planned meeting was held at the Old Crown on 13 January 1778 and, perhaps unsurprisingly, passed a resolution which supported the New Street Theatre obtaining an Act licensing it for a four month season each year. Another petition was then circulated and this was presented to the House of Commons on 28 January 1779. The Commons referred it to a committee, but it seems that no further action was taken.⁴⁵

At a meeting of the Proprietors held on 12 March 1779 Faulconbridge reported that he had received an offer from several (unnamed) persons that, if the Proprietors tried once more to get a licence, then they would raise the money to defray the expenses involved (although the Proprietors were to repay them if the attempt ended in success).⁴⁶ The Proprietors initially accepted the proposal, but at another meeting held a month later (on 16 April) it was decided that 'the Intended Application to Parliament for an Act to licence New Street Theatre be deferred for the Present', and there the matter seems to have rested.⁴⁷ Faulconbridge clearly took a leading role in these attempts to gain a licence, eventually claiming £105 for expenses he had incurred along the way (see below, p. 319),⁴⁸ but it was to be almost another twenty years before the New Street Theatre finally got its licence in 1807 and became the Theatre Royal, Birmingham.⁴⁹

Faulconbridge also clearly took a major part in attempts to resolve the problems between the New Street and King Street Theatres. He reported to the meeting of the New Street proprietors on 4 January 1779 that he and Mr Gem, representing the King Street proprietors, had drawn up eleven 'propositions ... respecting an Accomodation of the Theatrical disagreements' between the two groups. In essence these proposed that the two sets of proprietors should be merged into a single body, the King Street proprietors paying £45 on each of their twenty shares to raise them to the same value as the thirty New Street shares (worth £75 each). The extra money was to be put towards the cost of the new building work at New Street. Only New Street would continue to operate as a theatre, with King Street being let 'for the advantage of the united proprietors for some other purpose'. The draft agreement also called for both Yates and Younger and Mattocks to surrender their leases on New Street and King Street respectively and then to share New Street for the next six seasons.⁵⁰ At first it looked hopeful that a deal was in sight, but the negotiations dragged on for the next three months and eventually foundered over the inability of the lessees to agree over the terms of the settlement, in particular how they should divide up the first six

⁴² Langford 1870, 278–9, quoting from AG 17 February 1777. In AG 10 March 1777 the New Street Theatre Proprietors published the text of their Bill, also in an attempt to head off any objections (Langford 1870, 279–80). Bath had become the first provincial city to obtain a licensed theatre by Act of Parliament in 1768. It had been followed by York and Hull (1769), Liverpool (1771) and Manchester (1775), so the idea was very much in the air at this time (Lowndes 1982, 22).

⁴³ Langford 1870, 281–3.

⁴⁴ *Minute Book*, 11v.–12v.

⁴⁵ Langford 1870, 284.

⁴⁶ *Minute Book*, 18r.

⁴⁷ *Minute Book*, 19r.

⁴⁸ Cunningham 1950, 22.

⁴⁹ Crompton Rhodes 1924, 8 and 10; Price 1988, 2.

⁵⁰ *Minute Book*, 12v.–15r.

seasons at New Street. The last reference to the proposed merger is at a meeting on 16 April 1779 and the subject then disappears for good from the minutes.⁵¹ Throughout this period Faulconbridge was in the chair at every meeting of the Proprietors, continued the negotiations with the King Street representative, and wrote and received a stream of letters on the Proprietors' behalf.

As we have already seen, both the New Street Theatre and the King Street Theatre reopened in the summer of 1779 after their enforced closure, but King Street found it hard to compete, did not open for the 1780 season and remained closed thereafter. In 1786 the building became a chapel for Lady Huntingdon's Connexion, a Calvinist Methodist grouping, largely funded by Selina, Countess of Huntingdon.⁵² The New Street Theatre, now without a rival, continued to thrive. In 1780 the Proprietors finally got to grips with the long-planned houses and other new building work that had been agreed in 1774 and 1777 respectively, but which had apparently been delayed by the difficulty of getting the agreed monies out of certain of the Proprietors. On 3 January 1780 the Committee was authorised to press ahead with the work.⁵³ Once again it seems that Faulconbridge played an important role. At the next meeting, on 6 March, he reports back with comparative prices that he has obtained for using stucco or stonework for the new façade. He also explains that he has been in touch with Samuel Wyatt, the architect, for drawings 'for the regulation of the Workmen in the Execution of the Building'.⁵⁴

However, after a decade of steady progress, disaster struck on 17 August 1792. After a number of unsuccessful arson attempts over the previous months, someone broke into the theatre, deliberately set several fires and succeeded in burning it down. Despite the offer of a 200 guineas reward by the Proprietors, no one was ever charged for the offence.⁵⁵

The death of Faulconbridge

Faulconbridge did not live to see this tragedy, but died in 1783. As we have seen from his obituary, his final illness clearly lasted for some time,⁵⁶ and this may be why his attendance at meetings of the New Street Theatre committee, hitherto impressively regular, begins to become patchy from September 1782 onwards. He is last specifically named as attending on 11 February 1783 (although no names are recorded in the *Minute Book* for the meetings on 4 and 25 March and 15 April). Perhaps more significantly, at the main annual meeting of the Proprietors held on 6 January 1783, Faulconbridge is one of the three members of the outgoing committee who 'declined serving for the year ensuing' – the first time that he had not served on the committee since its establishment back in February 1777.⁵⁷

Perhaps his illness was prompting him to put his affairs in order, or maybe he simply found himself in need of ready cash, but the minutes of the meeting of 6 January 1783 also record the receipt of a letter and an 'account' (what we would today call a bill or invoice) from him:

To the Proprietors of the Theatre, Gentlemen. After the many services I have been employed in for you, both in Birmingham and London, and which must be needless for me to point out the particulars to you, being so well known not only to yourselves, but to all the Town, I did not expect I should be required to make out a charge for such Services, but that your gratitude, would have pointed out to you what would be proper on the occasion, that not being the Case, I have sent you my charge which I have made very moderate, that no one may have reason to complain – for had I charged in proportion to my time and trouble, five times the Sum would not make me amends, nor would five times the Sum I have charged be in so great proportion for my time, as you have already paid for business of a similar nature to another proprietor. – I am Gent^l. Your very Hble. Serv^t. – T. Faulconbridge. – New Hall Street 22nd. October 1782 – The Proprietors of the Theatre D^{rs}. To Tho^s. Faulconbridge. – To Soliciting a Bill in Parliament with great variety of other business respecting the Theatre and Buildings &c. £105.

⁵¹ *Minute Book*, 15v.-19r.

⁵² Cunningham 1950, 15; *VCH Warwickshire* VII, 219. The site of the theatre now lies underneath New Street Station (Crompton Rhodes 1924, 6). For Lady Huntingdon, see *DNB* IX, 133-5.

⁵³ *Minute Book*, 21r.-21v.

⁵⁴ *Minute Book*, 22r. The houses were not actually ready for letting until January 1782 (*Minute Book*, 27r.-27v.).

⁵⁵ Dent 1880, 264. An account of the fire appeared in *AG* for 20 August 1792. It records the 'Many ineffectual attempts ... made for months past to set fire to our Theatre.' After the fire the theatre was rebuilt to a design by George Saunders.

⁵⁶ The obituary describes it as 'lingering'. See p. 314 above.

⁵⁷ *Minute Book*, 1r.-35r. *passim*.

It is clear from this letter that that Faulconbridge had expected that his expenses would be covered without the need for such formality, and that he was hurt and offended that he was being, as he saw it, so shabbily treated after working so hard on behalf of the Theatre and his fellow Proprietors.⁵⁸ A decision over his claim was postponed to another meeting planned for 21 January, but this was inquorate, as were the Proprietors' next seven attempts to meet.⁵⁹ By the time a quorate meeting was finally held in the late summer of 1783, Faulconbridge was dead. It is sad to report that there is no trace in the minutes that his expenses bill was ever paid.

On 11 February 1783, Faulconbridge sold one of his two shares in the theatre for £100 to Thomas Everton, a saddletree maker in Birmingham.⁶⁰ About ten weeks later (on 1 May) he died. His will (dated 5 April 1783) makes no specific mention of his remaining share in the theatre, but he retained this posthumous connection with the New Street Theatre for some years after his death. On 16 December 1791 his executors even bought back his second share from Thomas Everton's executor for £103 16s. 8d., but early in the following year (on 23 February 1792) they sold both his shares, for £190 each,⁶¹ finally severing his last links with the theatre that he had done so much to establish.⁶²

POSTSCRIPT

While this note was in press, a second specimen of this pass, struck in silver, has come to light in the Birmingham Museum collection. Erroneously put aside among miscellaneous uncatalogued material in the early 1980s, this second specimen (accession number 1885 N 1541.151) is part of a collection of over 200 pieces presented to the museum in 1881 by Mr H. Buckley. This example is engraved *Jos.h Green's* on the reverse, in slightly larger lettering than that on Thomas Faulconbridge's pass.

Like Faulconbridge, Joseph Green was a successful Birmingham merchant, who also served as High Bailiff (in 1778, the year immediately prior to Faulconbridge).⁶³ He first appears in the trade directories in 1770, when he is listed as a wine merchant at 25 New Street.⁶⁴ Described simply as a merchant, he continues to be listed until 1798,⁶⁵ although his address begins to appear as 'Portugal House' from 1787.⁶⁶

Green was also one of the original subscribers to the New Street Theatre project, holding one share.⁶⁷ Again like Faulconbridge he served on the committee established on 10 August 1773 to see through the scheme to build the Theatre on Mr Inge's land in New Street.⁶⁸ Thereafter he was (unlike Faulconbridge) an irregular attender at meetings of the subscribers, although the meeting of 13 June 1776, held to prepare the deeds for incorporation of the Proprietors, is noted as being 'held at Mr. Green's'.⁶⁹

The house where this meeting took place was right next door to the Theatre; indeed, part of it is visible at the right hand edge of Fig. 2 above. It was known as the finest private house of its day in Birmingham.⁷⁰ Described as virtually a country house with a pleasant garden, although in a busy marketing town, it later became the Inland Revenue Office and was demolished in 1874.⁷¹

⁵⁸ *Minute Book*, 34r.-35r.

⁵⁹ *Minute Book*, 35r.-37r.

⁶⁰ BCL Lee Crowder Coll. 421.

⁶¹ BCL Lee Crowder Coll. 421. The purchasers were Samuel Palmer and Thomas Price.

⁶² The Theatre Royal survived the fire of 1792 and another in 1820, but in 1956 it was finally closed and demolished.

⁶³ Hutton 1781, 93.

⁶⁴ *Sketchley's Guide*, 41.

⁶⁵ *The New Birmingham Directory ... 1798*, 24.

⁶⁶ The new style first appears in *The Birmingham Directory ... 1787*, 32.

⁶⁷ *Minute Book*, 1r.

⁶⁸ *Minute Book*, 2r.

⁶⁹ *Minute Book*, 5v.

⁷⁰ Cunningham 1950, 21.

⁷¹ Dent 1880, 192. Dent reproduces a vignette of the house taken from Hanson's Plan of Birmingham of 1778, where it is described as 'Mr. Green's House'. The trade directories suggest that it must have become known as Portugal House in the mid 1780s. Drake (1825, 38) records that it was called Portugal House 'by its original proprietor [i.e. Green], who had gained a fortune in the Portugal wine trade'.

It is clear that problems quite soon arose between Green and the Theatre over the boundary between the two properties. At the Annual Meeting of the Proprietors held on 5 January 1778 (at which Green was present), Thomas Faulconbridge was authorised to get the party walls between Green's property and the Theatre measured and to ascertain sums of money 'to be received and paid on account of such party walls'.⁷² The problem clearly rumbled on because a later meeting (chaired by Faulconbridge on 17 May 1780) agreed that a letter should be sent to Green about the dispute over the property boundary.⁷³ Whether for this reason, or simply because he wanted to realise his investment, Green sold his share in the Theatre on 15 January 1779 to Joseph Batterson, a Birmingham confectioner.⁷⁴

Green outlived Faulconbridge by more than twenty years, his obituary appearing in *Aris's Birmingham Gazette* in 1810: 'DIED. On Sunday se'nnight [sevensnight], aged 74, at Dalbury, in the county of Derby, Joseph Green, Esq. formerly of Portugal House, in this town.'⁷⁵ This would put him in his early sixties when he disappears from the trade directories and about thirty-eight when he used this pass. Both he and his house were remembered in Birmingham long after his death. In 1870, in response to an enquiry in *Local Notes and Queries* (in the local, Birmingham press) about the 'Mr. Green's House' that appeared on Hanson's Plan of Birmingham, two contributors noted that the house had been called Portugal House and that it had belonged to 'a gentleman ... who was known by the soubriquet of "Beau Green"', 'a man of good social position', who 'flourished towards the end of the last century and was a prominent man on occasions of public celebration ...'.⁷⁶

Finally, this pass allows us to speculate a little more about why named examples are known in both silver and copper. On this silver specimen Green's name is engraved with a possessive apostrophe 's', whilst on the copper example Faulconbridge's name is given in the nominative. Although this could simply reflect the length of Faulconbridge's name, it may strengthen the suggestion tentatively advanced above that the Proprietors themselves used silver medals (marked as belonging to them personally), but also had copper specimens (bearing their names) which they could pass out to others. Only the recording of further specimens may allow us to solve this problem.

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⁷² *Minute Book*, 11v.-12v.

⁷³ *Minute Book*, 23r.-23v.

⁷⁴ The sale is recorded in BCL Lee Crowder Coll. 421.

⁷⁵ AG 5 February 1810. Green died on Sunday 28 January. Dalbury is near Etwell, a few miles to the south-west of Derby.

⁷⁶ BCL 99081 (*Local Notes and Queries. 1865-1871*), 84, no. 557-8, of 7 December 1870. The original enquiry is 83, no. 551, of 9 November.

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- The Birmingham, Wolverhampton ... Directory* (1780) *The Birmingham, Wolverhampton, Walsall, Dudley, Bilston and Willenhall Directory or, Merchant and Tradesman's Useful Companion* (Birmingham).
- The Birmingham, Wolverhampton ... Directory* (1781) *The Birmingham, Wolverhampton, Walsall, Dudley, Bilston and Willenhall Directory or, Merchant and Tradesman's Useful Companion* (Birmingham).
- The Birmingham Directory ...* (1787) [Charles Pye], *The Birmingham Directory for the Year 1787* (Birmingham).
- The New Birmingham Directory ...* (1798) *The New Birmingham Directory for the Year 1798 ...* (Birmingham).

BRITANNIA: SOME HIGH POINTS IN THE HISTORY OF THE ICONOGRAPHY ON BRITISH COINAGE

KATHARINE EUSTACE

THE commemorative coin for the centenary of the Entente Cordiale between Britain and France was issued by the Royal Mint in April 2004 (Pl. 42, 1). The Entente was a colonial agreement in which British interests in Egypt and French interests in Morocco were mutually recognized in the face of growing German expansionism. The designer David Gentleman RDI explained his juxtaposition of 'the national icons of Britain and France: Britannia, immortal and majestic and La Semeuse (Pl. 42, 2), vigorous, alive and of the soil ... the two figures merge at waist level, as if on a court card in a pack of playing cards – upright or inverted depending on which way up the coin is held. This gives equal importance to both figures, appropriate in an entente of equals.'¹ Subsequently the French Mint adopted the design for commemorative coins of their own, the first time that they have ever consciously used a British design. These events brought the iconography of Britannia on the coinage to mind.

Despite its significance as a concept, and its rich visual expression at certain moments in the history of Britain, Britannia on the coinage or elsewhere has not, until recently, been a fashionable subject for academic research or publication, with the exception of L.S. Forrer's *Le Type de 'Britannia' sur les Monnaies de la Grand Bretagne*, and Marina Warner's *Monuments and Maidens*.² Indeed, look up Britannia in the index of any recent work of history or art history and references are practically non-existent, except perhaps to illustrations.³ But things change, and, early in 2004, Graham Dyer and Peter Gaspar presented a paper to the British Numismatic Society on 'The Standing Britannia Patterns of 1788'.⁴ Furthermore, when the *Oxford Dictionary of National Biography* was published that autumn, it included, for the first time, an article on the fictive persona of Britannia.⁵

There are four periods when political, social, economic and artistic factors played a part in the evolution of the design of Britannia on the reverses of the coinage: 1672, 1797, 1902 and 1953 to the present. This spans the centuries when in geopolitical terms Britain placed the emphasis, with justification, on the word 'great' in the political entity Great Britain and her empire. Britannia on the British coinage is one of the most enduring of secular symbols. Not only did she appear on the reverse of the lowest common denominations of coinage for almost three hundred years without a break, from 1672 to the last pre-decimalisation issue of 1967, she was also one of the most stable symbols in terms of design, rarely undergoing any radical change. This article will look at some of the political and artistic factors involved as they affected the design of the coinage bearing an image of Britannia.

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¹ Artist's design presentation to the Royal Mint Advisory Committee 2003.

² Forrer 1907; Warner 1985.

³ See for example Colley 1992.

⁴ G.P. Dyer and P.P. Gaspar, 'The Standing Britannia Patterns of 1788', unpublished paper read to the British Numismatic Society, January 2004. I am grateful to Graham Dyer for a typescript of this paper. Unpaginated.

⁵ Hewitt 2004.

Britannia in the Ancient World

The personification of the city-state as a woman was established with the identification and adoption of Pallas Athena as the maternal deity of Athens. Later, as Minerva, she became part of the iconography of Roman Republicanism. The idea of a nation as a woman was subsequently applied to subjugated nations as part of imperial expansion, the design perhaps specifically adopted for the coinage in which the garrisons of the respective territories were paid. Thus Gallia, Dacia, Provincia, Africa and so on, appear in the feminine gender as these nations came under Roman dominion; their names are often inscribed in the exergue, itself suggestive of subservience. The origin of the image, on a tetradrachm of Lysimachus of Thrace (306–281 BC) (Pl. 42, 3), is Greek, and almost certainly relates to a three-dimensional image or cult statue such as the Diana of Ephesus.

Britannia makes a number of appearances on Roman coins, almost all during the second century. It may reflect a need for currency in an area of the empire that required three legions to hold it down, compared to the one legion needed in North Africa. The first type appeared under the Emperor Hadrian (117–38), on a copper as struck in Rome in c.119, on which the reverse depicts a female figure with shield and spear, seated on rocks (or possibly a wall), inscribed BRITANNIA (Pl. 42, 4). The underlying symbolism in the weapons and the wall must be defence and control. Hadrian had visited Britain in 119, and Hadrian's Wall was begun soon after. Rome had decided after the humiliation and subsequent cashiering of the Ninth Legion, not to undertake the subjugation of North Britain, and the stone wall, as pointedly defensive as those in China or Berlin, signified a closed frontier.

The ideas behind the imagery found expression in other imperial projects, as in the relief on a giant keystone, probably excavated in the early sixteenth century and now in the Capitoline Museum, Rome (Pl. 42, 5). Thought to be from Trajan's Forum, which was being built when Hadrian came to power in 117, it has been known variously since its rediscovery as Dacia, Germania, or Conquered or Weeping Province, and was used in modern times as a pedestal for a standing figure of Roma.⁶ It was a source of inspiration for lines in Byron's *Childe Harold*:

She their Dacian mother, he their sire,
Butchered to make a Roman holiday.

The figure appears as an appropriately classical and theatrical prop for portraits by Pompeo Batoni and his contemporaries which were painted for Scots and English Grand Tourists in Rome in the mid-eighteenth century. Less ostentatiously, she is seen on Coade stone and Wedgwood plaques at the end of the century.⁷

Of the provincial types used by the Romans, only Britannia had rocks and a spiked shield beside her; the spiked shield may also make a subliminal reference to the notorious British chariot. Under Hadrian's successor Antoninus Pius (138–61), whose turf wall between Forth and Clyde marked a cautious expansion of territory, Britannia features on coins including a sestertius of 143 (Pl. 42, 6) and an as of 154 (Pl. 42, 7), which were struck in large numbers and circulated mainly in Britain.

Britannia in the seventeenth century

The particular importance of these coins is that they became the iconographic source for some of the first modern coins struck in this country, which appeared under a newly-established constitutional monarchy. In the immediate aftermath of the restoration of the monarchy under Charles II in 1660, and the calling-in of Commonwealth coinage, there was an acute shortage of money. There was a need too to establish the authority of the newly created constitutional monarchy and, as Andrew Burnett put it, the prestige that 'accrued from the production of a large coinage in the state's name'.⁸ John Evelyn's diaries suggest a close involvement on the part of the

⁶ Haskell and Penny 1981, 193–4, no. 28 (fig. 100).

⁷ Haskell and Penny 1981, 194 and nos 11, 12 and 15.

⁸ Burnett 1991, 10. See also Lindholm 1994.

antiquarian with the reform of the coinage that was underway.⁹ In January 1662 he was called into the King's Closet 'when Mr Cooper (the rare limner) was crayoning of his face & head, to make the stamps by, for the new *Mill'd* mony, now contriving, I had the honour to hold the candle whilst it was doing' and he and the King talked 'of Painting and Graving &c'.¹⁰ On 6 September 1662 Evelyn dined with Sir Edward Walker, Garter King at Arms and Mr Slingsby, Master of the Mint.¹¹ Then on 27 August 1663, he dined with Sir Philip Warwick, Secretary to the Lord Treasurer, who showed him the Accounts and 'other private matters relating to the Revenue'. Evelyn then went on 'to the Commissioners of the *Mint*, particularly about Coynage',¹² and then home. He records going to the Tower of London again on 9 March 1664, 'to sit in Commission about regulating the Mint, & now it was the fine Milled Coyne both of White-mony & Ginnies was established'.¹³ Further meetings of 'our *Mint Commiss*' which sat in the Inner Court of Wards, are recorded on 24 April and 10 July 1666.¹⁴ From the diary entries Evelyn was clearly on familiar terms with Henry Slingsby, the Master of the Mint. Slingsby was from a Yorkshire family whose members had been part of the cultural renaissance at the beginning of the century.¹⁵

Evelyn had made a Grand Tour to Italy in 1664–5 and, as his diaries record, made it his business to acquaint himself with the remains of Antiquity and to buy 'Medailles & other curiosities, Antiquities &c'.¹⁶ He was well acquainted with other collectors,¹⁷ with collections of antique coins,¹⁸ and with publications on the subject.¹⁹ He himself prospected for coins on his return to England.²⁰ When he came to write *Numismata: A Discourse of Medals Antient and Modern*, published in 1697, he demonstrated his intimate knowledge of antique coinage and his understanding of its symbolism as a precedent, 'the most lasting and ... Vocal Monuments of Antiquity'.²¹ Evelyn had been commissioned by Charles II to write an account of Anglo-Dutch relations, which was finally published as *Navigation and Commerce* in 1674.²² In *Numismata* Evelyn expressed a generally held view that Charles II was 'the most knowing in Naval Affairs, and vigilant to Improve and Maintain the Safety and Glory of these Kingdoms in its highest and chiefest Concern, which is certainly its Strength at Sea'.²³

The low denomination base metal coinage of 1672 was initiated by the Privy Council as an adjunct of the state and 'a national currency'.²⁴ The coins were legal tender, not mere tokens, being part of the monetary reform which included the suppression of tradesmen's tokens and their replacement by fine copper halfpennies and farthings (Pl. 42, 8–9). There were further issues of copper coins in 1673 to 1675 and 1679. The appearance of Britannia on the reverse of the new coinage coincided with two related factors: technical advances in manufacture, and the employment of new designers. Mechanisation of production, with the introduction of milling and horse-powered rolling-mills to process ingots into strips, superseded the hammered coinage. Pierre Blondeau's secret edge-marking machine, which had been rejected by the French,

⁹ De Beer 1955, III, 370.

¹⁰ De Beer 1955, III, 309.

¹¹ De Beer 1955, III, 335.

¹² De Beer 1955, III, 361.

¹³ De Beer 1955, III, 370.

¹⁴ De Beer 1955, III, 435 and 444 and n. 5.

¹⁵ Note the monuments to Sir Henry and to William Slingsby (1631 and 1634), Knaresborough Parish Church, Yorkshire.

¹⁶ De Beer 1955, II, 343; see also p. 368.

¹⁷ Gilbert Barrell and Sir Thomas Brown (De Beer 1955, II, 540 and 544); Sir Robert Murray (De Beer 1955, III, 445). See also the list in Evelyn 1697, 245.

¹⁸ He looked at coins in Bodley's Library, Oxford in 1654 and again in 1664 (De Beer 1955, III, 106 and 385).

¹⁹ 'Cavalliero' Pozzo's paper museum (De Beer 1955, II, 277) and William Burton's *A Commentary on Antoninus his Itinerary* ... (1658, London) (De Beer 1955, III, 221, n.7). In *Numismata* Evelyn refers to the collection in 'four noble volumes of *Duke Alberts of Bavaria*' recently presented by the Duke of Norfolk to the Royal Society (De Beer 1955, 42).

²⁰ He describes an Arcadian experience of talking to shepherds (De Beer 1955, III, 221). He kept his own collection in a cabinet which is now in the Victoria and Albert Museum.

²¹ Evelyn 1697, I; the version examined by the writer is inscribed: *Donum auctoris Hans Sloane* (Bodleian Library, Oxford, Arch.Num.XI.23). It was Evelyn who suggested the epigrammatic inscription *Decus et Tutamen* to Slingsby for the five guinea, crown and half crown in gold and silver (Evelyn 1697, 225).

²² De Beer 1955, I, 22.

²³ Evelyn 1697, 128.

²⁴ Oman 1931, 334.



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undoubtedly gave an advantage to the crown monopoly at a moment of consolidation of political change. The replacement by Charles II in 1661 of Thomas Simon, Oliver Cromwell's engraver at the Mint, by the brothers John and Joseph Roettiers from Antwerp, did not only reflect a change in political climate.

Antwerp had been a source of innovation and artistic invention since the late sixteenth century, when Flemish masons, settling in Southwark, had created a market and a style that dominated the proliferation of post-Reformation funerary monuments. In the cultural renaissance that characterised the reigns of the first two Stuart kings it was Antwerp's most famous sons, Rubens and Van Dyck, who established a court style. In the apotheosis of James I in the Banqueting Hall by the former and the equestrian imagery of Charles I by the latter, they had presented monarchy as monarchy might hope to be presented. As an important centre of intellectual enterprise which found its inspiration in Classical Antiquity, and as the financial hub of Northern European trade, Antwerp was also a market for coins, antiquities and paintings. The Roettiers were a dynasty of distinguished die-engravers and medallists, familiar with continental advances in minting money and well acquainted with a tradition of court taste and the significance of the Antique. Evelyn described John Roettiers, after a visit to the Tower Mint on 20 July 1678, as 'that incomparable Graver belonging to the Mint, who emulates even the Antients in both mettall & stone, he was now moulding of an Horse for the *Kings statue* to be cast in silver of a Yard high'.²⁵ The political economist William Petty in a series of questions and answers providing a guide to economic theory entitled *Quantulumcunque Concerning Money*, addressed to 'the Lord Halifax Anno 1682', declared 'Upon Account of Beauty, our *Britannia Halfpence* were almost all hoarded as Medals, till they grew common; for if but One Hundred of those Pieces had been coined, they would for *their Work and Rarity* have been worth above Five Shillings each, which for *their Matter* are not worth the *Halfpenny* they pass for'.²⁶ The success of the Roettiers manner in disseminating popular and aesthetic propaganda is evident in the fact that Joseph Roettiers was invited to Paris by Colbert and appointed Engraver-General of coins in 1682. He was given the title Premier Graveur de l'Histoire en Medailles, and was one of the first to contribute to the Medallist Histories which record the achievements of the reign of Louis XIV.

Britannia first appeared on the reverse of a medal to celebrate the restoration of the monarchy on 29 May 1660. Depicted above the inscription FELICITAS-BRITANNIAE, she was described by Evelyn as 'sitting under a Cliff by the Sea shore, with a Spear in one hand, and the *Union-Shield* in the other'.²⁷ The design for the reverse of the copper farthings and halfpennies of 1672 may have been connected to an earlier proof or trial pattern for a farthing in 1665, the reverse of which was inscribed *Quattuor Maria Vindico*, 'I claim the four seas' (Pl. 42, 9). In that year Charles II's brother, James, Duke of York, the Lord High Admiral, had defeated the Dutch at sea in the first of three wars with them. But the inscription was objected to by Lord Lucas in the House of Lords in 1670, in a speech on the scarcity of money, in which he satirised the splendid claim made on a base metal coin.²⁸ It was no doubt too overt a claim for Charles's patron, Louis XIV, and the proposal went no further.²⁹ The design was next used for what has been described variously as 'an experiment', and as a 'never completed' medal, the so called Naval Victories Medal of 1666-7 by John Roettiers (Pl. 43, 1),³⁰ after the Dutch Admiral Michiel Adriaansz de Ruyter had led a successful raid up the Thames estuary to within sight of Greenwich. The 'experiment' may have been a stage in the design process in which the obverse die, which would no doubt have been the profile portrait of Charles II by Roettiers, did not need changing. Britannia herself is presented in a somewhat louche pose, *en negligée*, the pair of putti who crown her with a laurel wreath being perhaps a reference to Castor and Pollux, who, according to marine tradition, appear heralding calm after a storm. The rayed sun breaking through clouds, being an emblematic device derived

²⁵ De Beer 1955, IV, 138 and n. 2.

²⁶ First published in London in 1682, it was republished by A. and J. Churchill in London in 1695, and reprinted in an annex to Massie 1760, 33-40.

²⁷ Evelyn 1697, 127, illus. LIV.

²⁸ Ruding 1840, II, 12 n. 2.

²⁹ Morrieson 1919-20, 135.

³⁰ Marciari and Macleod 2001, nos 19, 20.

from Giordano Bruno's theory of royal heliocentricity, is perhaps a tactful acknowledgement of Louis XIV's support.

The design re-emerged as the reverse of the Peace of Breda medal, struck to mark the negotiations of 31 July 1667 which brought the Second Dutch War to an end (Pl. 43, 2). Here Britannia's previously relaxed air has given way to an altogether more alert pose as she, wearing a cuirass, firmly grasps her shield, with its Cross of St George and the Saltire or St Andrew's Cross, and her lance. She has her back to a sea cliff as she observes in the near distance a ship – the Ship of State – and the fleet – the Wooden Walls – and, at a distance to the left, the Dutch fleet. The obverse, carrying Roettiers's portrait of Charles II, is inscribed: CAROLUS SECUNDUS PACIS ET IMPERII RESTITUTOR AUGUSTUS. The words are significant: they convey the idea of Monarchy as unifying symbol, a pax against civil war,³¹ and an emphasis on the restoration of the *imperium* of the Stuarts. There is a further reference to the Pax Romana under Hadrian and Antoninus Pius. Britannia was a deliberate choice, as Charles II reasserted the Stuart kings' claim to Lordship of the Seas. In 1672 the Third Dutch war broke out, with subventions from Louis XIV to Charles II, which may indeed have paid for the issue of the new coinage, just as the purchase of Dunkirk by the French in 1662 had made possible the minting of the higher denominations of gold and silver coins for the new reign.

The notion of Britannia as both a place extant in antiquity, and as a personification, had been developed at the end of the sixteenth and beginning of the seventeenth centuries, as part of the polemic leading up to and continued after the unification of Britain under James I and VI in 1603. It was used first by John Dee, who resurrected Britannia as the personification of an empire based on maritime endeavour.³² William Camden, the father of antiquarianism and archaeology, first published *Britannia, sive Florentissimorum regnorum, Angliae* in 1587.³³ In the sixth edition of 1607, still in Latin, engravings by William Hole present Britannia on the frontispiece (Pl. 43, 3), clearly based on the series of engraved coins now included after the chapter 'Nummi Britannorum' (Pl. 44). Camden described V and VI as 'alter Britanniam rupibus insidentum cum signo militari, hasta, & scuto alter eandem globo insidentum habet'.³⁴ The first edition in English, *Britannia or A chorographical description of Great Britain and Ireland together with the Adjacent Islands*, described the Roman coins rather differently as being 'stamped with the effigies of Antoninus Pius and Severus, Britain is figured in a woman's attire, sitting upon rocks'.³⁵ Henry Peacham made further reference to the Roman source for Britannia in his book of emblems *Minerva Britanna or a Garden of Heroical Devises* ... in 1612, addressed to Henry, Prince of Wales. The first emblem is dedicated to 'my dread Sovereigne James, King of great Britaine. &c.'. ³⁶ The emblem, an image of Britannia bestriding sea and land, one foot on a ship and one on shore, contradicts the *impresa* or verse:

Thus Britaine's drawn in old Antiquities,
What time the Romanes overran her land:
Who first devis'd her, sitting in this plight,
As then their captive, and abandon'd quite.

But can long continue at a stay,
To all things being, Fates a change decree:
Thrice-famous Ile, whom erst thou didst obey,
Usurping Roome, standes now in aw of thee ...³⁷

Here the subtext is the confusing recurrent theme of national antipathy to Catholic Rome, while adopting Roman precedents from the Antique. It was, however John Selden's *Mare Clausum seu De Dominio Maris*, written in 1618 but not published until 1635, which provided the intellectual

³¹ For the ideas behind monarchy and empire that continued to inform seventeenth-century thought see Yates 1975, *passim*.

³² Strong 1987.

³³ The escutcheon or badge on the title page is dated 1586 (Bodleian Library, Oxford (BOD 8° C32 Art. BS)).

³⁴ Camden 1607; Queen's College, Oxford, (53 G.20).

³⁵ Camden n.d., 36; Bodleian Library Oxford (BOD Gough Gen. top.163).

³⁶ Peacham 1612, 1.

³⁷ Peacham 1612, 108.

argument in Latin for British claims over the sea.³⁸ Addressed to Charles, King of 'Magna Britanniae', it was a riposte to Hugo Grotius's *Mare Liberum* (1609), in which he had made the case for the Dutch claim to the North Sea and beyond. Selden's defence of British naval supremacy cited the coinage of Antoninus Pius among many other antique precedents, for he had read rocks for waves in the engraved coins in Camden.

The suggestion has recently been accepted that the figure of Britannia herself was modelled on Frances Teresa Stuart (1647–1702), later Duchess of Richmond; this was previously considered by some as myth-making on grounds of scale.³⁹ *Painted Ladies, Women at the Court of Charles II* (2001), cites four contemporaries, the diarists John Evelyn and Samuel Pepys, and the poets Andrew Marvell and Edmund Waller, all of whom considered Frances Stuart to be the model for Britannia.⁴⁰ A member of the Stuart clan, her family had followed Charles II into exile in 1649/50, and she grew up at the court-in-exile that centred round Charles I's widow, Henrietta Maria. She came to England in 1662 as a Maid of Honour to Charles II's Queen, Catherine of Braganza. In a court obsessed by beauty and with presentations and representations of allegory and symbol, Frances was well-known not just for her beauty but for her Amazonian equestrian skills. As one of the 'Windsor Beauties' she was depicted at the age of seventeen in Peter Lely's portrait as Diana the Huntress (Pl. 45, 1). Ten years later, now sloe-eyed and dark-haired in conformity with the Caroline Court's ideal of beauty, she was painted by the French artist Henri Gascar as Minerva or Pallas Athene, which may itself be a self-conscious reference to her earlier role as Britannia (Pl. 45, 2). Samuel Pepys alludes to the beauty and presence at court of Frances Stuart on a number of occasions. On 15 July 1664 he saw her coming away from a portrait sitting at which the King had been present.⁴¹ She had had the distinction of being drawn not once but several times by the greatest British painter-in-small, Samuel Cooper in 1662 and 1663, at the time that, as we have seen, the King was also sitting to Cooper.⁴² There is a uniface medal of her in silver by John Roettiers, which bears a striking resemblance to the profile head of Britannia on the Breda Medal.⁴³

Given the way that modern medallists work, it is entirely possible that Roettiers modelled a profile portrait in wax or clay, from which to scale-down for the medal or coin. On 25 February 1667, Pepys recorded: 'at my goldsmith's did observe the King's new Medall where in little there is Mrs Stewards face, as well done as ever I saw anything in my whole life I think – and a pretty thing it is that he should choose her face to represent Britannia by.'⁴⁴ Another acquaintance of Evelyn's, the poet Edmund Waller,⁴⁵ in his poem 'Upon the Gold Medal', left no one in the know in doubt as to who the sitter for Britannia was, while Andrew Marvell, satirising Waller's much earlier poem 'Instructions to a Painter', referred openly to Frances Stuart:

The Court in Farthing yet itself does please
And female *Stewart*, there, Rules the four Seas.
And Fate does still accumulate our woes,
And *Richmond* here commands, as Ruyter those.⁴⁶

Comparing favourably Roettiers's designs with those on the reverse of coins of Hadrian and others 'so exquisitely designed', Evelyn continued '*Monsieur Roti* (Graver to his late Majesty Charles II) so accurately express'd the countenance of the *Dutchess* of R – in the Head of *Britannia*, in the *Reverse* of some of our Coin, and especially in a *Medal*, as one may easily, and almost at first sight, know it to be her Grace: And tho in the smallest *Copper* ... such as may justly stand in competition with the antient Masters.'⁴⁷

³⁸ Selden 1635.

³⁹ Oman 1931, 335 and Craig 1953, 174.

⁴⁰ See Marciari and Macleod 2001, 106.

⁴¹ Latham and Mathews 1971, IV, 209.

⁴² Marciari and Macleod 2001, nos 16 and 18.

⁴³ Marciari and Macleod 2001, no. 72. The date given there is 'after 1675' but with no explanation, and at the same time the Breda Medal is used as an identifying source for the sitter.

⁴⁴ Latham and Mathews 1971, V, 83.

⁴⁵ 'To His worthy Friend, Master Evelyn/Upon his translation of Lucretious', Thorn Drury (n.d.), II.

⁴⁶ 'The Last Instructions to a Painter', Margoliouth 1971, I The Poems, 166, lines 71–4. Quoted in Marciari and Macleod 2001, no. 19.

⁴⁷ Evelyn 1697, 27.

Britannia in the eighteenth and early nineteenth centuries

Introduced as a supporter of constitutional monarchy, Britannia in the Roettiers' manner remained a stable and consistent emblem on British low-denominational base metal coinage throughout the eighteenth century. She satisfied post-baroque Augustan Classicism and contributed to the establishment of patriotic awareness: she was an easily recognisable symbol in everyone's pocket. However, we should bear in mind that Britannia was also identified with Lockean principles of Liberty, and was a symbol that could be used either by the 'Patriot' or Whig Party, or by the Tories and Jacobites, and by their mercantilist supporters. Jeremy Black has cited medals as evidence of a strongly developed consciousness of national political issues and foreign policy. In particular he cites James Roettiers's medal of 1739 on which Britannia, brandishing a sword and the words *I'll avenge my wrongs*, is invoked against the Convention of the Prado, a trade treaty seen to be detrimental to British interests.⁴⁸

Political opposition found further expression in the gardens at Stowe, with their punning Temples of Liberty, Ancient Virtue, and British Worthies, set out by Richard Temple, Viscount Cobham.⁴⁹ Here, Britannia was a significant presence. An *'Alto-Relievo of the Four Quarters of the World, bringing their products to Britannia'* (1738–42),⁵⁰ by the Fleming Peter Scheemakers, was moved from the interior back wall of the Palladian Bridge to the Temple of Concord and Victory. There it was incorporated into the pediment to mark the successful conclusion of the Seven Years War against the French (1761–2). The increase in demand for full scale figurative funerary monuments in the eighteenth century, peopled with attributes such as Faith, Fame, Victory and History, did not immediately provide an opportunity for the deployment of Britannia. She does, however, appear in her alter ego as Minerva on a number of monuments such as that to John Campbell, 2nd Duke of Argyll by Louis François Roubiliac (1745–9),⁵¹ and the monument to Captain Horneck (1746–7) by Peter Scheemakers in Westminster Abbey.⁵² The former was a military hero, the latter a military engineer surrounded by his books and compasses. The reference to Britannia is there for all to see, but when Scheemakers redeployed Minerva on the monument to Dr Marmaduke Coghill at Drumcondra in Ireland,⁵³ the allusion may be taken as mute, because Ireland had in Hibernia a long-standing personification of her own.

An early example of a Britannia on a funerary monument is to be found on the memorial to Jonas Hanway (1712–86) in Westminster Abbey. The philanthropist Hanway was a founder governor of the Foundling Hospital and of the Marine Society, two foundations specifically associated with the needs of the Merchant Marine, in its role of establishing the first British Empire. The Foundling Hospital, which had been granted its charter of incorporation by George II in 1739, was the 'darling project' of Thomas Coram (1668–1751), sea captain, ship builder, merchant and philanthropist.⁵⁴ He had spent ten years in Boston and Taunton, Massachusetts from 1693/4 to 1703/4, before returning to England, and devoting himself to the establishment of a 'Hospital for the Maintenance and Education of Exposed and Deserted Young Children'. His mission was to highlight the social problem of the many abandoned and murdered babies, and to train those rescued foundlings for the expanding navy and mercantile marine, with the ultimate aim of providing trained colonisers for an expanding North American empire, as the Romans had for their empire. In the design for Hanway's monument by John Francis Moore, Britannia appears to be clothing the naked, watched by an infant mariner (Pl. 45, 3).⁵⁵

Britannia appeared for the first time on the new copper penny and twopence of 1797 (Pl. 43, 4). As in 1672, there was a convergence of international politics, advances in technology, a need for a reform of the coinage and a shift in style or taste. Two figures dominate the scene: Matthew

⁴⁸ Black 1986, 8–10.

⁴⁹ Eustace 1998, 31–40.

⁵⁰ Quoted in Roscoe 1999, 274; Haslam 1997, 36–41, illus.

⁵¹ See Physick 1969, 118–21, figs 83, 84.

⁵² Roscoe 1999, no. 61, figs 61 and 62.

⁵³ Roscoe 1999, no. 47, fig. 65.

⁵⁴ See Wagner 2004.

⁵⁵ Physick 1969, 130–1, figs 94 and 95.

Boulton, the industrialist and entrepreneur from Birmingham, and John Flaxman, the sculptor and designer, both leading figures of the Neo-Classical movement.

Boulton harnessed James Watt's engine to coin-blanking machinery and presses, replacing muscle with steam power. In 1786 Boulton supplied 100 tons of copper coinage to the East India Company, and in 1787 the Anglesey Copper Company started to produce penny tokens. That same year a Committee of the Privy Council was set up to consider reform of the coinage because, as Dyer and Gaspar explain, 'the copper coinage was heavily infiltrated by counterfeits, there was pressure from those in the copper trade ... and well-made private tokens were beginning to circulate'.⁵⁶ Matthew Boulton invested heavily in technology and design in the battle against counterfeiters. He recommended a retaining collar to ensure a constant diameter, and the use of lettering on the rim. Milling and its cost-effectiveness once again coincided with a change of pattern or design. Boulton's engraver, Jean-Pierre Droz, attempted an entirely nude Britannia, while Lewis Pingo, Chief Engraver to the Mint, provided a standing Britannia for a pattern for unusually large halfpennies and farthings (Pl. 43, 5). Although examples of these were struck, the Committee did not proceed with them, but Boulton continued to build presses. In 1797, when the nation required a large supply of copper currency, Sir George Yonge, Master of the Mint, supported Pingo's design and advised him on a Minerva-like helmet, which would subsequently become ubiquitous. The Privy Council Committee, however, perhaps feeling that the olive-bearing Britannia was too pacific at a time of threatened invasion,⁵⁷ decided on Boulton's cartwheel type and reverted to the Roman Britannia in a design by another of Boulton's designers, Conrad Heinrich Küchler. This introduced the trident in place of the lance, a further reminder of Britannia's nautical and marine significance. The trident was introduced on pennies and twopences for the first time in 1797 at Boulton's Soho Mint in Birmingham, and would remain a signifier of Britannia on the coinage to the present day. In 1810 the rebuilt Royal Mint on Tower Hill opened, and the new coining presses developed and supplied by Matthew Boulton would remain in use until the end of the century.

Matthew Boulton was a close friend and business-associate of Josiah Wedgwood. They were both members of the Birmingham-based Lunar Society and it is not mere conjecture to suppose that design was part of the currency of conversation between the two men. In 1787 *Mercury uniting the hands of Britain and France* was commissioned by Wedgwood from Flaxman, to celebrate the Anglo-French Commercial Treaty of 1786, to be made in Jasperware (Pl. 45, 4).⁵⁸ Wedgwood wrote to Flaxman: 'We must take care not to shew that these representations were invented by an Englishman: as they are meant to be conciliatory, they should be scrupulously impartial. The figures ... should be equally magnificent & important, in their dress, attitude, character and attributes: and Mercury should not perhaps seem more inclined to one than the other ... and if you think there is no impropriety in it, I should wish France to have her helmet & shield as well as Britannia, and the Fleur de lis upon the latter.'⁵⁹ The plaque appeared in Wedgwood's French catalogue in 1788, the year the Committee was considering patterns from the Royal Mint and from Boulton.

It is indicative of the shift in taste, whereby the influence of Rome and Roman antiquities is superseded by Greece. The influential writings of Cochin and Winckelman and others came to disparage the perceived derivativeness of much Roman art, and specifically of Roman sculpture, and artists such as Flaxman pursued what was perceived as the purer, simpler style of Greece. A possible early source for this shift in aesthetic understanding may be the Minerva Gustiniani now in the Vatican Museum, excavated in 1631 (Pl. 46, 1).⁶⁰ This was not copied until towards the end of the eighteenth century, when it came to be admired as an example of the 'high austere', specifically Greek style, the closest to Phidias's Athene for the Parthenon. It was engraved by Nathaniel Marchant, engraver to the Mint from 1797 to 1815, on a sardonyx intaglio for Charles

⁵⁶ Dyer and Gaspar, as in n. 4.

⁵⁷ Dyer and Gaspar, as in n. 4.

⁵⁸ Bindman 1979, nos 52a–e, illus.

⁵⁹ Quoted in Bindman 1979, no. 52, illus.

⁶⁰ Haskell and Penny 1981, no. 63, fig. 140.

Long. Long was President of the Committee for the Inspection of National Monuments, set up to supervise the numerous monuments to the heroes of the Napoleonic Wars. Among them was the monument to Vice-Admiral Viscount Nelson (1807–18), in the south transept of St Paul's Cathedral, for which Flaxman adopted the Minerva type (Pl. 46, 2). The source was not lost on a contemporary German visitor, Ludwig Schorn, who described the monument where 'the artist has made as evident as possible the purity of his purpose shaped by antiquity, and the nobility of forms which he learnt from there ... Britannia, a tall figure similar to the war-like Minerva is leading two young mariners'.⁶¹ Another example may well have been the even more severe Pallas of Velletri excavated in 1797, which Prince Augustus, later Duke of Sussex had tried to buy, and of which his brother the Prince Regent donated a cast to the Royal Academy where Flaxman was Professor of Sculpture.⁶²

The iconography of Britannia flourished during the Napoleonic Wars at a demotic level in the political cartoons of Gillray, Cruikshank and Rowlandson, and became wholly identified with national endeavour, and the need for memorials to the fallen. The Trafalgar Vase designed by Flaxman in 1805–6, and made by the goldsmiths Rundell, Bridge and Rundell, has a cast and applied figure of a seated Britannia (Pl. 46, 3). More than sixty of these were made for presentation to naval and military officers by Lloyd's Patriotic Fund. To mark British naval victories over the French in 1799, Flaxman designed proposals for a number of public monuments. In his pamphlet *A letter to the Committee for raising the Naval Pillar or Monument under the patronage of his Royal Highness the Duke of Clarence* (1799), for which William Blake did the engravings, Flaxman cited precedents from the ancient world, and espoused the cause of the public statue (Pl. 46, 4). He acknowledged the idea as first suggested to him by 'Mr G. Dance'; 'How much more sentiment and interest there is in a fine human figure than can possibly be produced in the choicest piece of architecture, and especially when the figure represents the protecting Power or Genius of the Country ... like the Minerva in the Athenian citadel, whose aspect and size should represent the Genius of the Empire.'⁶³

Britannia in the late nineteenth and twentieth centuries

The next significant development in the use of Britannia in the design of the coinage is the silver florin of 1902 (Pl. 47, 1). In the late 1890s Britain was conducting a colonial war of expansion in South Africa, and met with a highly-successful guerrilla resistance from the Boers before annexing the Orange Free State in 1900 and the Transvaal in 1902. Three hundred thousand British soldiers had been dispatched to the Cape, and the two phases of the war were met at home with a jingoistic enthusiasm. News of the relief of Mafeking on 17 May 1900 was celebrated by vast crowds in the streets of London and elsewhere, awash with patriotic hysteria. Meanwhile the Suffragette movement was gaining ground in its campaign for female emancipation.

Once again Britannia flourished on the pediments and porticos of public buildings across the nation, to take but one example the new Gallery of British Art by Sidney R.C. Smith, on Millbank, completed in 1897, and popularly known after its benefactor as the Tate Gallery, now Tate Britain. At the demotic end of the spectrum, Britannia was in the early 1900s a constant presence at fêtes, festivals and parades. Postcard Britannias (Pl. 47, 2), according to Tom Phillips RA, were the still expression of 'an unembarrassed fervour for king and country'.⁶⁴ In 1901 the death of Queen Victoria was marked at Esher, the village in Surrey in which she had spent most of her childhood, by a monument with a life-size bronze standing figure of Britannia. Two years later the British Numismatic Society adopted as its seal a standing Britannia.

Over the same period increasing dissatisfaction was expressed with the artistic merits of the coinage. In an article on 'The New Coinage' in the *Art Journal* for March 1893, the painter Philip

⁶¹ Schorn 1827, quoted in Bindman 1979, 30. Modern commentators have avoided the allusion to Britannia, preferring to see the standing female figure as Minerva: 'a less stridently didactic and patriotic role' (Irwin 1979, 160).

⁶² It was ceded to the French by the Treaty of Florence in 1801, and is still in the Louvre; Haskell and Penny 1981, no. 69, illus.

⁶³ Flaxman 1799, 7; Flaxman acknowledged the idea as first suggested to him by 'Mr G. Dance' on p. 14 (Godwyn Pamphlets, Bodleian Library, Oxford (BOD G.Pamph. 1815 (6))).

⁶⁴ Phillips 2004, 117.

Wilson Steer described it as 'the apotheosis of machinery and the almost extinction of Art'.⁶⁵ The reworking of Wyon's 1861 Britannia in 1895 incurred ridicule in *Punch* (Pl. 47, 3–4):

Britons good at making money,
Cannot make a coin that's decent.
Rule Britannia? Rot sophistic!
Had I really sway I'd rule
No more duffers inartistic
With my coins should play the fool.⁶⁶

The accession of Edward VII in 1901 led to an immediate decision by the Mint authorities for a new look to the coinage, which had remained almost static across the sixty years of Victoria's reign, notably in Leonard Wyon's design for the 'Bun' penny of 1861. While the Wyon-inspired figure on the reverses of the penny and halfpenny remained the same, George William de Saulles was instructed to replace the heraldic devices on the reverse of the florin with a Britannia. De Saulles, who had trained and worked at Birmingham, had already produced the design for a standing Britannia for the British trade-dollar for Hong Kong and the Far East in 1895. De Saulles's model for Britannia had been the seventeen year old Susan Hicks Beach, a society beauty and the daughter of Sir Michael Hicks Beach, Chancellor of the Exchequer and Master of the Mint. In 1900 De Saulles designed the Queen's South Africa Medal, on which Britannia gestures encouragingly to the troops, in a manner much closer to the treatment of Marianne, the French national symbol, who is usually seen in action, and often on the offensive.

De Saulles's model in 1901–2 was once again Susan Hicks Beach (Pl. 47, 5).⁶⁷ This prompted a question in the House of Commons from Ellis Griffith as to the design of the new florin, whether there had been an open competition. He further criticised the design: the horizon sloped left to right, the figure and head were not in proportion, there was no indication of a second foot, there was no beading, and so on.⁶⁸ Britannia's designer was clearly aware of the earlier attempts at standing figures, and he pays a conscious tribute to them. De Saulles' Britannia is nevertheless a product of the New Sculpture,⁶⁹ and the aesthetic movement of the latter part of the nineteenth century. With her Symbolist, art-nouveau appearance, facing forward astride the prow of a galley, she is more Nordic heroine than Roman matron or Greek goddess. Comparative work by Alfred Stevens, whose allegorical figure of Valour on the Duke of Wellington's Monument in St Paul's (1857–75), suggests subliminally a Britannia type, as does F.W. Pomeroy's *Fortitude* (c.1895, Sheffield Town Hall) (Pl. 47, 6), were part of a new sensibility and aestheticism which expressed itself in dress as well as in stone or bronze. De Saulles's florin was not, however, a popular or well-wearing design, and was abandoned in 1911. It was, however, the inspiration and source for Gentleman's design for the Entente Cordiale commemorative crown a hundred years later.

Half a century later, the 1953 penny of the new reign retained the reverse design of 1936–7, the pre-war coinage begun for Edward VIII and maintained for George VI. Designed and modelled by C.W. Coombes, it harked back to the Victoria Britannia of 1861, with a lighthouse, a little more drapery and one less ship – the designer had indeed proposed a battleship, but the idea was rejected (Pl. 47, 7). It remained the design right up to decimalisation, a further example of an apparent need to express continuity and stability, and perhaps of the straitened circumstances of post-war Britain.

Post-war Britain underwent a social and cultural revolution, and an artistic flowering that found its expression in the Festival of Britain in 1951. Centred on London's South Bank, this had such architectural landmarks as the Dome of Discovery and the Skylon. In 1948 a competition to create a symbol for the Festival of Britain (Pl. 48, 1) was won by Abram Games, the son of a Latvian photographer and a seamstress from Russo-Poland. Games had trained at St Martin's School of

⁶⁵ Quoted in Barclay 1992, 56–68.

⁶⁶ *Punch*, 18 June 1896.

⁶⁷ Designs and moulds were thought to have survived with the family (Forrer 1907, 8), but the writer has been unable to establish this with the St Aldwyn Estate Office.

⁶⁸ 'Varia: The New Florin' (extract from the *Daily Graphic*), *NCirc* July 1904.

⁶⁹ The title of an article by Edmund Gosse published in the *Art Journal* in 1894 (see Beattie 1983, 3).

Art and was employed by Jack Beddington of the Shell petroleum company as a poster designer in the 1930s. Games's stark Britannia image for the Festival comprised a helmeted female head making up the northern point of a compass. While conforming to Games's philosophy of 'maximum meaning' from 'minimum means', it left no one in doubt that this was Britannia. The bunting on the Festival logo, inspired, Games said, by his wife hanging out the washing, was added at the request of the Festival Committee, to make his uncompromising logo appear more festive.⁷⁰ It cropped up everywhere, on souvenir sets of stamps, ties, plastic paper knives, road signs and park benches.⁷¹

Why was the symbol of Britannia not given a new lease of life at this point, when the opportunity of a new coinage for a new reign was there? Perhaps because she had always been a symbol of empire, and in modern times a symbol of the imperial history of these islands. In the post-war era which rapidly developed into the Cold War, there was too much uncertainty about Britain's changing status on the world stage. The Empire's demise, as India, and then colonies and protectorates in Africa achieved nationhood, meant that the deployment of Britannia as a symbol was perhaps understood by the collective conscience to be an anachronism, while within the British Isles themselves the momentum towards constitutional devolution grew apace. It is significant that in the patriotic euphoria of the Falklands War of April 1982, the Prime Minister, Margaret Thatcher, was, perhaps too obviously, associated with Britannia by newspaper editors, cartoonists and political commentators, albeit ironically.⁷²

The prevailing tendency in art of the immediate post-war period was abstraction, which most leading artists embraced wholeheartedly. Abstraction was an unsympathetic aesthetic context for coinage design, so dependent on symbolism and narrative, to thrive. Subsequently Pop Art, with its radical tendency to subvert accepted perceptions, was inimical to the conservative need for the coinage to provide continuity and stability. With the return to figuration in the 1980s and 90s, sometimes referred to as the New Figuration, John Lobban's Britannia for the British Numismatic Society medal and letterhead of 1990, contrived a neat divide between figuration and abstraction (Pl. 48, 2).

On the coinage, in 1968, in the run-up to decimalisation, Britannia was abandoned altogether and questions were asked by Bernard Braine in the House of Commons as to why this was so. Soon after, a heptagonal 50 pence piece in cupro-nickel was issued with a rather etiolated Britannia, shorn of any context, on the reverse, designed by Christopher Ironside (Pl. 48, 3).

In 1987 the Chancellor of the Exchequer, Nigel Lawson, initiated a development in gold coinage, the first for 150 years, when he announced a gold bullion £100 coin denomination, the Britannia, as legal tender. This was the result of pressure from the commercial success of the South African Krugerrand. Fifty-two designs by fourteen designers were submitted to the Mint in competition. The winner, Philip Nathan, declaring his intention of 'lessening the neo-classic grip and strengthening the "British" attributes',⁷³ provided designs for the reverse of variant Britannias in an eclectic variety of styles. His first design, in 1987, of a wind-swept standing figure clutching a shield and an olive branch in the teeth of a gale, appears to owe its inspiration to the 1902 Edward VII florin by De Saulles. In 1997 and 1999 Britannia appears as Boudicca driving a two-horse chariot, whose stylistic ancestors might have been Thomas Banks's roundels, modelled on the Luna and Sol reliefs on the Arch of Constantine, for Soane's Bank of England and elsewhere. Casts of these survive in the Sir John Soane's Museum.⁷⁴ It may refer too to Thomas Thornycroft's *Boadicea* on the Embankment at Westminster Bridge (1856–1902). Another Nathan design in retro-deco manner, of 2001, owes something to the standing Britannia and lion on the bronze memorial medals of the First World War, designed by E. Carter Preston. These may recall the gentler Una Guiding the British Lion by William Wyon on the reverse of the £5 gold coins of 1839.⁷⁵ The 2003 Britannia's helmeted head is reminiscent of French coinage depicting well-

⁷⁰ Moriarty 2003.

⁷¹ Feaver, W., 'Festival Star', in Banham and Hillier 1976, 40.

⁷² Warner 1985, 38–45.

⁷³ Nathan 1987.

⁷⁴ Bryant 2005, nos 40–50.

⁷⁵ Jones 1979, no. 280, illus.

known French women, such as the film stars Brigitte Bardot and Catherine Deneuve, as Marianne, with retro-deco wave patterns suggestive of the rostra or prows of galley ships (Pl. 48, 4–7).⁷⁶

The unfashionableness of Britannia has surely resulted from intellectual, social and cultural embarrassment about Empire, but, as this recedes into the past, so we begin to look at Britannia anew. In John Lessore's group portrait *Six Paralympic Athletes*, unveiled at the National Portrait Gallery in June 2004 (Pl. 48, 8), in the figures of Dame Tanni Grey-Thompson and Maggie McEleny, the references to a demotic Britannia are subliminal but unmistakable.

A casual glance at the reverse of the coins of lower denomination and base metal in the past three hundred years would suggest no change in small change. S.H. Hamer, in an article on private tokens in *BNJ* for 1906, declared: 'The reason for this consistent character of modern coins is due to the utilitarian spirit of the times, and the necessity for a huge volume of money for the purposes of trade.'⁷⁷ A hundred years later with the advent of electronic payments and the card economy and use of 'plastic', it is questionable that there is a need for a huge volume of coinage. The last decade has seen a proliferation of designs, driven by the collectors' market, and the design of the coinage has been far from stable or consistent.

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⁷⁶ Nathan 1987. Nathan states that he deliberately avoided De Saulles's standing Britannia, and all other earlier representations, while admitting that no artist works in a vacuum.

⁷⁷ Hamer 1906, 309.

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KEY TO PLATES

Plate 42

1. Reverse of the cupro-nickel commemorative £5 coin for the centenary of the Entente Cordiale of 1904, designed by David Gentleman and issued in April 2004. Royal Mint Museum. (© The Royal Mint)
2. Obverse of the French silver 2 franc coin. *La Semeuse*: signed by Oscar Roty, 1902. Royal Mint Museum. (© The Royal Mint)
3. Reverse of a silver tetradrachm of Lysimachus of Thrace (323–281 BC). Courtesy of the Trustees of the British Museum. (© British Museum)
4. Reverse of a copper as of the Emperor Hadrian, struck in Rome c.119 AD. Heberden Coin Room, Ashmolean Museum, Oxford. (© The Ashmolean Museum, Oxford)
5. Relief, part of a giant marble keystone, probably excavated in the early sixteenth century, thought to be from Trajan's Forum, Rome. Ht. 120 cm. Palazzo dei Conservatori, Rome. (© Musei Capitolini)
6. Reverse of a copper alloy sestertius of Antoninus Pius, probably minted at Lyon in Gaul in AD 143. Royal Mint Museum. (© The Royal Mint)
7. Reverse of a copper as of Antoninus Pius, AD 154. Heberden Coin Room, Ashmolean Museum, Oxford. (© The Ashmolean Museum, Oxford)
8. Reverse of the 1672 copper halfpenny. Royal Mint Museum. (© The Royal Mint)
9. Reverse proof or trial pattern for a copper farthing, 1665. Inscribed QUATTUOR MARIA VINDICO. Royal Mint Museum. (© The Royal Mint)

Plate 43

1. Nineteenth-century pewter uniface re-strike of the Naval Victories medal by John Roettiers, 1666–7. British Museum (M 7574 EH). (© The British Museum)
2. Reverse of the gold Peace of Breda medal by John Roettiers, 1667. Inscribed FAVENTE DEO and in the exergue BRITANNIA. British Museum (George III Eng. Med. AV4). (© The British Museum)
3. Frontispiece to *Britannia* by William Camden, engraved by William Hole and published by George Bishop and John Norton, London, 1607. (detail) (© The Provost, Fellows and Scholars of The Queen's College Oxford)
4. Reverse of the copper penny struck at Matthew Boulton's Soho Mint, Birmingham, 1797. Royal Mint Museum. (© The Royal Mint)
5. Copper pattern for a farthing, designed by Lewis Pingo, 1788. Royal Mint Museum. (© The Royal Mint)

Plate 44

Nummi Britannorum, Plate 65 from *Britannia* by William Camden, engraved by William Hole and published by George Bishop and John Norton, London, 1607. (© The Provost, Fellows and Scholars of The Queen's College Oxford)

Plate 45

1. *Frances Stuart, later Duchess of Richmond and Lennox* by Peter Lely, c.1662: oil on canvas; 125.7 × 103.5 cm. Her Majesty the Queen. (© The Royal Collection Enterprises)
2. *Frances Stuart, Duchess of Richmond and Lennox as Minerva* by Henri Gascar, c.1675: oil on canvas; 248 × 138 cm. Goodwood House, Sussex (© The Trustees of the Goodwood Collection)
3. Design for the monument to Jonas Hanway in Westminster Abbey by John Francis Moore, c.1786: pen and ink and watercolour, 18 × 10½ ins. Victoria and Albert Museum, London (4910.22). (© V&A)
4. *Mercury Uniting the Hands of Britain and France*, designed by John Flaxman, 1787. Earthenware biscuit raised relief mould, 26 × 27 cm. Image by courtesy of the Wedgwood Museum, Barlaston, Staffordshire. (© The Trustees of the Wedgwood Museum)

Plate 46

1. Minerva Giustiniani, marble. Ht. 223 cm. Vatican Museum, Rome. (© Musei Vaticani)
2. Monument to Vice-Admiral Viscount Nelson by John Flaxman, (1807–18), St Paul's Cathedral. (© Conway Library, Courtauld Institute of Art)
3. The Trafalgar Vase, designed by John Flaxman and made by Rundell, Bridge and Rundell, for Lloyd's Patriotic Fund, 1805–6; silver. Ht. 48.3 cm. Victoria and Albert Museum. (© V&A)
4. Design for a statue of Britannia by John Flaxman, 1799. Pencil, pen and ink. Victoria and Albert Museum, London (E.950–1965). (© V&A Museum Images)

Plate 47

1. Reverse of the 1902 silver florin designed by G.W. de Saulles. Royal Mint Museum. (© The Royal Mint)
2. Unknown woman as Britannia, c.1900; photographic postcard. (Tom Phillips Collection). (© Tom Phillips and the National Portrait Gallery)
3. Reverse of the 1861 copper penny designed by Leonard Wyon. Royal Mint Museum. (© The Royal Mint)
4. Reverse of the 1895 copper penny. Royal Mint Museum. (© The Royal Mint)
5. Susan Hicks Beach, the daughter of Sir Michael Hicks Beach, the Chancellor of the Exchequer and Master of the Mint, from the *Tatler and Bystander*, c.1900. (© The Ashmolean Museum)
6. *Fortitude* by F.W. Pomeroy, c.1895. Vestibule, Sheffield Town Hall. (Conway Library, Courtauld Institute of Art)
7. Reverse of the 1938 copper penny designed by C.W. Coombs. Royal Mint Museum. (© The Royal Mint)

Plate 48

1. Festival of Britain poster designed by Abram Games, 1948; lithograph. Museum of London. (© Abram Games Estate)
2. Obverse of the bronze British Numismatic Society Medal designed by John Lobban, 1990. Royal Mint Museum. (© The Royal Mint)
3. Reverse of the 1969 cupro-nickel 50 pence piece designed by Christopher Ironside. Royal Mint Museum. (© The Royal Mint)
4. Reverse of the 1987 gold bullion £100 coin designed by Philip Nathan. Royal Mint Museum. (© The Royal Mint)
5. Reverse of the 1997 gold bullion £100 coin designed by Philip Nathan. Royal Mint Museum. (© The Royal Mint)
6. Reverse of the 2001 gold bullion £100 coin designed by Philip Nathan. Royal Mint Museum. (© The Royal Mint)
7. Reverse of the 2003 gold bullion £100 coin designed by Philip Nathan. Royal Mint Museum. (© The Royal Mint)
8. *Six Paralympic Athletes*, winners of gold medals at the 2000 Paralympics, Sydney, Australia, by John Lessore, 2004; oil on canvas, 203 × 203 cm. National Portrait Gallery, London (NPG 6669). (© National Portrait Gallery)

SHORT ARTICLES AND NOTES

MORE LATE ANGLO-SAXON AND NORMAN COIN JEWELLERY

GARETH WILLIAMS

In *BNJ* 71, prompted by two recent Treasure cases, the author published a study of what appears to be a distinct group of coin jewellery running from the Expanding Cross type of Edward the Confessor to the Two Stars type of William I, although with some gaps in the sequence.¹ A total of 18 pieces were listed. All of the pieces described were currency coins which had been converted into brooches, or badges, by the addition of some form of pin and clasp, and fourteen of the eighteen had been gilded. All of them were mounted in such a way as to leave the reverse visible, meaning that a cross was on display. Notably, one of the gaps in the series was the one type in this period without a cross on the reverse, the PAX type of Harold II, although the overall numbers were too low to provide the basis for any statistical assumptions.

Since then, three further pieces have been reported which also seem to fit into the same group. These are as follows:

1. Provenance: Near Sudbury, Essex, 2002 (Treasure case 2002 T277)
Ruler/ type: Edward the Confessor, Expanding Cross
Mint: Bedford
Moneyer: Ælmon
Obverse: +EDPE-/RDREX:
Reverse: +ÆLHONONBEDEFO
Gilded: Yes
Visible face: Reverse
Disposition: Braintree Museum

Comments: The coin is a silver penny of Ælmon of Bedford, from the same dies as the four coins of this type and moneyer in the BM. It is gilded on both sides, although more complete gilding is visible on the reverse than the obverse. It is not immediately apparent whether this is because the gilding is more worn on the obverse, or because only the reverse was gilded in the first place, with a partial gilding of the obverse occurring only as a by-product of the gilding of the reverse, which would be possible given gilding techniques of the period. The coin was riveted to some kind of fastening, although the fastening has been lost and only the rivet remains, close to one edge. The coin brooches normally have a hinged pin and a catch-plate and, although the precise form of these fittings varies, such fittings are normally attached with either two or four rivets. A contemporary coin-brooch is known with the fittings secured with a single rivet placed in the centre of the coin, but it is unlikely that the same type of fitting could have been effectively secured by a single rivet placed near the edge. The fitting is therefore likely to have been a single pin or, more likely, a loop for suspension so that the coin could be used as a pendant, either singly or as part of a larger necklace. It is also possible that a catch-plate was soldered on, rather than riveted, and that a bare patch in the middle of the gilding indicates where this was, although no trace of solder remains. Whether this was a badge or a pendant, it seems to fit well into this group of coin jewellery, displaying a gilded obverse, especially as the Expanding Cross type is the type most heavily represented in the group.

¹ Williams 2001.

Reference: *Treasure Annual Report* 2002, 47–8, no. 32.

Illustration: *Treasure Annual Report* 2002, fig. 32.

2. Provenance: North Walsham, Norfolk (Treasure case 2003 T238)
 Ruler/ type: Harold II, PAX type
 Mint: Thetford
 Moneyer: Godric
 Obverse: †HAROLD REX ANG
 Reverse: †GODRIC ON ÐEOTI
 Gilded: Yes
 Visible face: Reverse
 Disposition: British Museum

Comments: Struck from the same dies as a coin in the British Museum collection (*BMC* ii, 474, no. 122). The reverse has been gilded, and a brooch fitting attached by rivets through two holes in the centre of the coin, representing the 'type a' fitting of my earlier article. The brooch fitting has become detached, leaving a cuprous residue on the back of the coin, plus the two holes for rivets. The combination of the residue of the brooch fitting, the crisp edges of the rivet holes (showing silver which does not have the same patination as the rest of the ungilded obverse), and scratch marks (combined with a slight bend) on both obverse and reverse, suggest that the brooch fitting has been removed since the object was discovered, possibly in the process of cleaning.

Reference: *Treasure Annual Report* 2003, 61–2, no. 77.

Illustration: *Treasure Annual Report* 2003, fig. 77.

3. Provenance: 'Near Aldeburgh', Suffolk, November 2003 (Treasure case 2003 T371)
 Ruler/ type: William I, Two Sceptres type (*BMC* iv)
 Mint: Thetford
 Moneyer: Cinric
 Reverse: —ENRIC ON DEOTF —
 Gilded: Yes
 Visible face: Reverse
 Disposition: Aldeburgh Museum

Comments: Chipped at two points, with small traces of solder for the attachment of the catch on the obverse side, although the exact nature of this fitting is uncertain. The coin is rather worn with the secondary gilt finish only surviving in the recesses between the motifs and lettering on the reverse, and in small areas on the obverse where the gilding survives around parts of the border.

Reference: *Treasure Annual Report* 2003, 62, no. 78.

Illustration: *Treasure Annual Report* 2003, figs 78.1 and 78.2.

Chronological and geographical distribution

Combining the three new examples with the earlier material, the distribution of the coin jewellery by type now appears as shown in Fig. 1.

The chronological distribution reinforces the existing pattern, suggesting that this style of jewellery was introduced while the Expanding Cross type was current (or perhaps in the following type if demonetised, rather than current coins were used), remained popular in the subsequent two types, and continued to be produced in smaller numbers well into the reign of William I. With several types represented by a single example, the absence of the Hammer Cross and Bust Facing types is probably not significant, while the previous gap for the Harold II PAX type has now been filled.

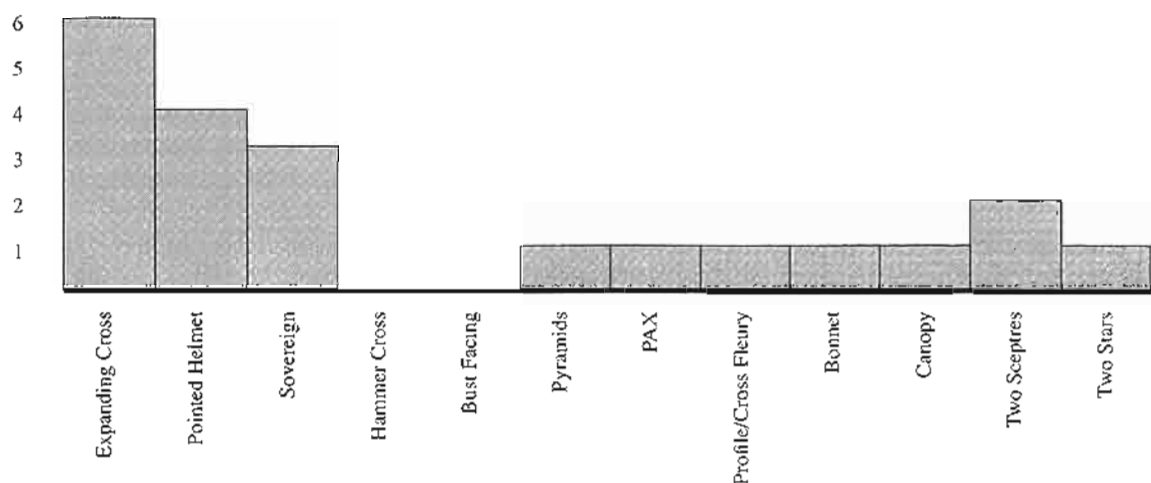


Fig. 1. Coin jewellery by type.

The findspots of the three new pieces do not significantly change the pattern of the relationship between find spots and mint signatures. A Thetford find from Norfolk is obviously local, while both a Thetford find in Suffolk and a Bedford find in Essex can be seen as regional finds, but the general pattern remains much the same as before. This broadly accords with the wider circulation of the coinage, with a tendency towards the use of coins from larger mints, and from the surrounding area, but with no clear prescriptive relationship. However, the fact that all three new finds come from the east of England helps to balance the predominance of Wiltshire findspots, which I previously suggested might reflect recording as much as deposition. The overall distribution remains consistent with an entirely random distribution, although there remains a complete lack of northern examples of either findspots or mint signatures which may just possibly have some significance, although this seems unlikely.

Appearance and function

The new finds now give a total of seventeen of the twenty-one recorded examples showing gilding, and reinforce the existing tendency to display the reverse rather than obverse of the coin. The one change of any note is the addition to the corpus of an example of Harold II's PAX type. That diminishes the probability – never great – that this type of jewellery was some sort of factional badge. Perhaps more significant is the fact that the PAX type does not show a cross on the reverse, and this type of jewellery is therefore no longer restricted to stylised portrayals of the cross. However, the display of the word PAX, like the cross, is consistent with this type of jewellery representing some form of religious badge, and this remains the most likely interpretation of the group as a whole, although the exact significance remains unclear.

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1343 AND ALL THAT: PREVIOUSLY UNNOTICED DOCUMENTS RELATING TO ENGLAND'S NEW GOLD AND SILVER COINS

CATHERINE EAGLETON AND RICHARD KELLEHER

EDWARD III's long reign saw major changes to the currency of England. The resumption of a sustained issue of the groat and the introduction of the halfgroat from 1351 coupled with the introduction of a gold coinage – instituted to help restore the English role in the lucrative wool trade with the Low Countries – represent an important evolutionary phase in the monetary profile of the kingdom. Within the currency community of the mint many men made their name and their living.¹ Two of the best-known names are Lot Niccoli and George Kirkyn, who were responsible for the first gold coinage in 1343–4. However, we know little about the process by which these two men were appointed. Now, a pair of documents in the Public Record Office can shed some light on this episode, and introduce us to someone whose name is rather more obscure: Peter Circos.² In 1343 Circos petitioned for, but did not get, the job of introducing the gold coinage in England, and his original petition, as well as the indenture from the King and Council inviting him to come and show his skill at coining, survive, providing interesting new evidence relating to this significant change to the English currency. These two documents, which have thus far escaped the notice of numismatists, are included in Appendix 1.

Problems with the coin

During the fourteenth century, problems with England's silver coinage had increased. The output of the mint had fallen significantly from the 1320s due to the steadily depreciating volume of bullion available with which to strike new coin. Indeed estimates suggest that the silver currency was greatly reduced in size in the early fourteenth century.³ From 1335 the production of pennies had almost ceased,⁴ and only silver halfpennies and farthings were produced, at the reduced fineness of 10 oz (as against 11 oz 2 dwt). At the same time, England was engaged in an expensive war with France, putting further strain on the Royal finances and the already debased coin.

Sometime presumably in early 1343 – the document is not dated – a moneyer named Peter Circos wrote to King Edward III, his petition outlining the problems with the English coinage.⁵ Circos states that there are too many counterfeit and false sterlings,⁶ and that good coin is leaving England rather than staying in circulation. He promises that he and his companions can show the king how to improve the situation, to make all money of the right weight and fineness, and to prevent false money from being used in England and good money from going abroad. The king will also be able to profit, Circos promises, by reducing the amount of silver in the coins slightly: from $7\frac{1}{2}$ oz to 7 oz per mark (equivalent to a reduction from 11 oz. to $10\frac{1}{2}$ oz. per pound). In return, Circos asks that he and his companions will be masters of the money. The petition relates primarily to silver coinage but, almost as an afterthought, Circos added a final line mentioning that if the king wished to have gold money, he knew how to make that as well.

By the early 1340s it had become clear that the English needed to introduce their own gold coinage because they had become heavily reliant on foreign gold coins to fulfil the need for higher denomination monies. Gold coins from Italy and France were the international trading medium necessary for the kind of cross-channel transactions that were becoming increasingly prevalent among the merchant communities in England (and especially in London). Indeed, parliament had earlier petitioned for French and Italian gold coin to be made legal tender in the kingdom.⁷ By

Acknowledgements: The authors are grateful to Barrie Cook, Martin Allen, and the editors of the *British Numismatic Journal* for their helpful comments on drafts of this article.

¹ For the difficulties posed in tracing these men, and further discussion, see Freeman 2000.

² His name suggests that Peter may possibly be linked to the Cerchi family of Florence, but no certain association can be made.

³ Mayhew 1974, 5–8; Allen 2000a, 43–4.

⁴ For the production of a limited number of pennies after this date see Allen and Vosper 1999.

⁵ London, Public Records Office [hereafter PRO], SC/8/39/1947A.

⁶ The fullest survey of the problems associated with counterfeit sterlings of this period is to be found in Mayhew 1983, 10–28.

instituting a gold coinage in his own name, not only could Edward III produce a native English coin, thus reducing the dependence on externally administered and managed foreign money, but he could also extract a seignorage at the mint to fill his own depleted coffers. The temporary cessation of hostilities with France in 1343 enabled the crown to concentrate on re-establishing the wool trade with Flanders, which had been damaged by the conflict, and the introduction of the gold coinage was a step in remedying the situation.

On 20 June 1343, the king replied to Peter Circos, issuing an indenture which survives in two copies. One of these is kept with the copy of Circos's petition, both documents having been found loose among 'ancient Chancery records' in 1923, at which point they were allocated their present catalogue numbers.⁸ The second copy of the indenture is found in the Close Rolls, also from the Chancery.⁹ The medieval Chancery was where the secretarial business of the King was carried out; the clerks of the Chancery prepared charters and letters, and kept records and copies of correspondence in the various rolls. Of the various sets of rolls, the Close rolls recorded 'closed' royal letters sent under seal, which often included orders and instructions. That the indenture is found in the Close Rolls tells us that it was indeed issued, but the loose copy of the same document is also interesting because it is a draft of the enrolled indenture. Such an indenture would have been prepared by a scribe, checked by a supervisor, and then a fair copy issued, and the correspondence enrolled. This process can be seen in the two versions of the indenture: the draft document was corrected in a different hand than that of the main scribe and then copied to produce the indenture and the copy in the Close Rolls.

The indenture states that Circos is to show the King and Council how best to make both gold and silver coins, for the profit of the king and his people. If Circos and his companions give advice that is better than any other, they will be put in charge of making the gold and silver coinage and receive various benefits and payments for doing so. However, as another indenture from 14 December 1343 tells us, Circos was not successful, and the job went to Lot Niccoli and Geroge Kirkyn, with the first florins being minted between January and August of 1344.¹⁰

One of many?

When Peter Circos petitioned Edward III in 1343, promoting himself as the man to coin the new money of England, he was probably one of a number of men equipped with both the skill and reputation to be the new *maistre de moneye*. The king and his council must have been acutely aware that remedial action was necessary as the state of the currency at the time was poor. The presence of Italian moneyers in the mints of England was not unusual: Florentine masters were active in both the archbishop of York's mint and at the mint at Durham from the mid fourteenth century.¹¹ From the evidence of the petition and indenture discussed here, it seems as though the King and Council required them to demonstrate their skill. In the case of Niccoli and Kirkyn their level of expertise is beyond dispute, and is visible in the workmanship of the three gold florins (with the obverse design based on the French *masse d'or*) now known to exist.¹² Peter Circos, although he didn't get the job, nonetheless has much to tell us about the functioning of the Tower mint in the fourteenth century. More generally, this pair of documents shows the value of looking closely at the surviving manuscript records, and of considering them alongside the numismatic evidence. We still have much to learn about the medieval mint at London, and the people involved with it, but these documents demonstrate the importance of persisting with the sometimes difficult handwriting and language, to reveal the information that has been preserved.

⁷ Reddaway 1967, 1, citing *Rot. Parl.* ii, 105, 127a; Cook 1999, 231-84; Mate 1978.

⁸ Note in modern hand added to London, PRO, SC/8/39/1947B.

⁹ London, PRO, C54/173 Part 1, m. 6d; or see *Calendar of Close Rolls Preserved in the Public Record Office: Edward III*, vol. VI (1341 to 1343), 125.

¹⁰ The most recent discussion of the new gold coinage from florin to noble and the changes of warden is Woodhead 1996, 7. For information on the seignorage rates at the mint see Reddaway 1967, 3. The indenture is in London, PRO, C54/173 Part 2, m. 4d; or see *Calendar of Close Rolls Preserved in the Public Record Office: Edward III*, vol. VI (1341 to 1343), 261.

¹¹ Allen 2000b, 61-3. See also Allen 2002.

¹² Two are in the British Museum collection, and a third has recently come to light as a metal detector find 'somewhere in southern England' (B. Cook, *pers. comm.*), sold at auction on 29 June 2006 for £460,000 (Spink auction catalogue 182, lot 301).

APPENDIX 1

Because of a patch of ink spilled on two of the three documents, there are parts where it is extremely difficult to read the text. In the transcriptions and translations that follow, the following symbols are used.

A number of letters illegible	[...]
A word legible but of unclear meaning	[<i>text</i>]
Editorial insertion	<text>

The petition: SC 8/39/1947A (Fig. 1)

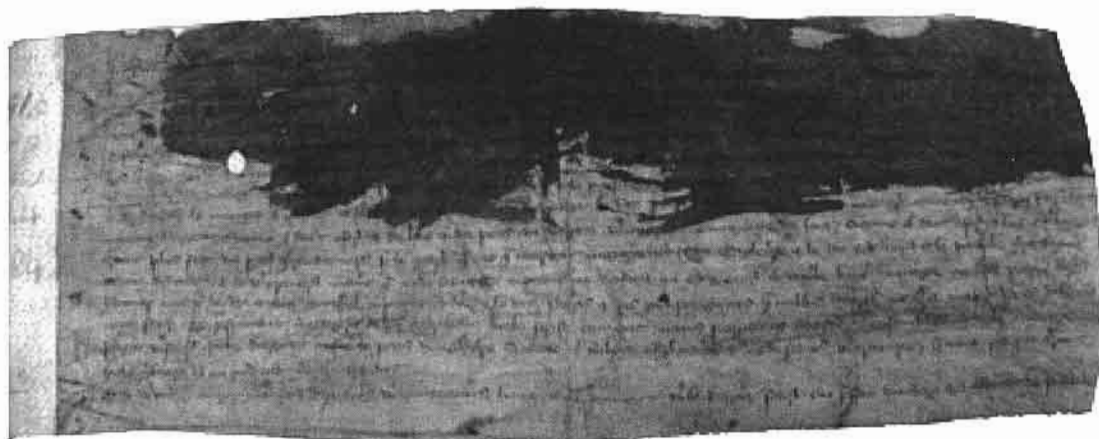


Fig. 1.

A nostre segn' le Roy et a son conseil maistr' Pieris de Circos maistre de moneye que come en vostre Roialme doyt auoir bene monaies ceste adire esterlings que les trespes soudes et quatre denars poisent un mark en les quel mark' doit auoir septl ounces et trespes d'argent fin et en tiele moneye [...] auoyr le Roy et tote la poeple mes il nest pas [...] car totis les bans esterlingis serunt portez de la [...] et en Engleterre demoerunt les fables esterlings veilles et esterlings countrefetl et faux que v[...]ier de lamer¹³ sicune io^a goy issute que tout esterlings que sunt en Engleterre vous trouueriez comunement quel les gr[...]se landz et auyet denieres poisent un mark' ou mayus et laquel mark' faut en tour vii ounce d'argent fyn et chescunl io^a vaut le dite moneyes en peruamit et en tele manere est le Roy et le poeple defutz / Et pour ces que vous et vostre conseil voilliez mettre amender l et a redrester la moneye et garder vous vostre poeple de tele damage le dit pieris vous trouera vere manere [...] porrez faire Tuncl monnaie d'argent sicune il doit estre et de loie et de pois au verrez vous auerez bons monoye de loie y sicune il doit estre et les Esterlingsl serrant plus fort de pois quatre deniers p' le mark que ces courent maintenant Engleterre et le Roi gaynera et le poeple sera sauuel saunz damage et si vous trouera manere que nulle fauxe monoie ne vendra en Engleterre' et nulle bone monaye ne serra porte de lal lamer¹⁴ mes que le Roi et son conseil metant a certeyn le dit Piers et ces compaignons que nullis autres ne sera mestr' des dite mol noye forceque eux respenant au Roy et a les marchanz tiele prise coment nous porremis acorder ensemble en cete manerel pourrez vero faire riche d'argent ceste le ces¹⁵ pais dengleterre sicune il soleit estre [...] vous ne le faces vous trouueriez que tote poeple serruntl riche de¹⁶ coners¹⁷ la ou quidint auer argentl Et si vous veilez auoyr moneye dor nos troueremis bone voie coment vous le porrez faire au proffat du Roy et a esement de poeple

'To our lord the King and his Council, master Peter of Circos, master of money, how in your kingdom you must have good money, that is to say sterlings so that 13 shillings and 4 pence make¹⁸ one mark, in which mark there must be 7 and a third ounces of fine silver, and in such money the King and all the people to have [...], but it is not [...] because all the good sterlings are taken from the [*lamer*]¹⁹ and in England there remain the weak old sterlings, and counterfeit and false sterlings, that [*v ... ier*] of the [...] each one of them that is issued, that all sterlings which are in England you will commonly find that you will have [*gr ... se*] praise, and coins making²⁰ one mark, or more, and each mark at the tower must be 7 ounces of fine silver, each of them worth the said money in circulation, and it is in this way that the

¹³ This word appears twice in the document, but its meaning is unclear.

¹⁴ This word appears twice in the document, but its meaning is unclear.

¹⁵ Inserted above line of text.

¹⁶ Inserted above line of text.

¹⁷ This word appears only once in the document, and its meaning is unclear.

¹⁸ Literally 'weigh'.

¹⁹ This word presumably means something like 'land' or 'country'.

²⁰ Literally 'weighing'.

King and the people are freed. And for those that you and your council wish to appoint to correct and to redress the money and keep you and your people from such harm, the said Peter will find you the true way [...] you can make do this. Then the money of silver, each one must be of the law and the true weight, you will have good money of the law and each one must be of it, and the sterlings being more abundant by 4 pennies to the mark by weight than those now circulating, England and the King will gain, and the people will be kept safe, without harm. And if you find the way that no false money will be exchanged in England, and no good money will be taken from the [lamer],²¹ but that the King and his council appoint for certain the said Peter and his companions that no others will be masters of the said money except that they answer to the King, and to the merchants such price as we can agree together. In this way you can truly make these countries of England rich in silver, each of which should be [...] you do not do it, you will find that all the people will be rich in [coners]²² where they think to have silver. And if you want to have money of gold we will find a good way that you can do this to the profit of the King and the benefit of the people.'

The indenture: SC 8/39/1947B (Fig. 2) and Close Rolls 17 Edward III part 1 (C54/173 part I) m. 6d.

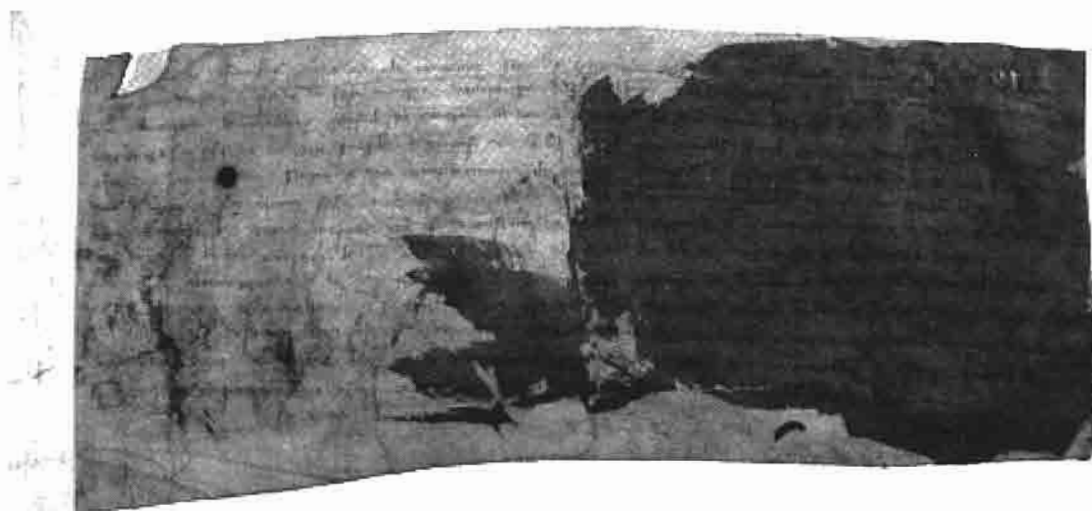


Fig. 2.

Ceste endenture tesmoigne que ces est le couenant faite per entre nostre seignor le Roi Dengleterre et de Fraunce et son Chaunceller et Tresorer²³ dune part et Pieris Sircos et ses compaignons mestres de faire monoie dautre part Cest assaioir que le dit Pieris et ses compaignons monstrent le meillour voie et doneront le meillour conseil qils saueront au dit nostre seignor le Roi coment il pusse faire en Engleterre monoie dor et dargent a son profit et de son poeple et si ensi soit que leur conseil soit meillour que nul autre ne donerra le dit nostre seignor le Roi promette et arainat as ditz Pieris et ses compaignons qils soient chaungeours et Receuours de tout lor et de tout largent que serra port pour ouere et quils seront fesours et chiefs ouerours de tout la ditel monoie tantque ils se portent bien en mesme loffice²⁴ peruant de nostre dit²⁵ seignor le Roi pour loffice du dit chaungeour mesmes les gages mesmes qil est acustume l de bailler as autres pour le monoie dargent et atant pour le monoie dor et paruant pour le dit ouerage mesme le pris qil est acustume de bailer asl autres pour le monoie dargent et pour la monoie dor al auenant et que le dit nostre seignor le Roi mettra gardein du chaunge et gardein del assail del monoie et taillour de fer dacoynier a sa volonte et paiera de son coustage Et le dit nostre seignor le Roi mons[egnior] Robert Payvyngs sonl Chaunceller et oyer William de Custance son tresorer promettent s' leur bone foi de tenir et maintenir toutes les choses auantdites Enl tesmoignance de verite les partes auantdites nostre dir seignor le Roi son chaunceller et tresorer Pieris Sircos pour lui et ses compaignons cest endentures entrechaungeablement ont mys leur seals Don<ne> a Westm<inster> le XXme iour de Juyn lan du regne nostre dit seignor le Roil cest assauer dengleterre disseptisme et de Fraunce quart

'This indenture witnesses that this is the covenant made between our lord the king of England and of France and his chancellor and treasurer of one part, and Peter Sircos and his companions, masters of making money, of the other part. It is to know that the said Peter and his companions will show the best way and give the best counsel that they know to the said lord the King, how he can make in England money of gold and of silver for his profit and for his people. And so if their counsel is better than any other will give, our said lord the King promises and arraigns to the said Peter and his

²¹ This word presumably means something like 'land' or 'country'.

²² This word presumably means something like 'bad money' or 'coins'.

²³ et de Fraunce... et Tresorer] added above line in SC/8/39/1947B.

²⁴ tantque... loffice] added above line in SC/8/39/1947B.

²⁵ dit] added above line in C54/173 part I.

companions that they will be changers and receivers of all the gold and of all the silver which is brought to work, and that they will be makers and chief workers of all the said money, as long as they comport themselves well in the same office. Coming from our lord the King for the office of the same said changer, the same payments that it is customary to pay to the others for the silver money and as much for the gold money, and coming from the said working the same price as it is customary to pay the others for the money of silver and for the money of gold as before, and that our said lord the King will place a guardian of the exchange and guardian of the assay of the money, and a maker of coining irons, at his disposal, and will pay the cost. And the said lord the King, monsieur Robert Paryngs his chancellor, and hearing William de Custance his treasurer, promise by their good faith to uphold and maintain all the aforesaid things. In witness of the truth of the foresaid parts, our lord the King, his chancellor and treasurer, Peter Sircos for him and his companions, have each put their seals to this indenture. Given at Westminster the 20th day of June the seventeenth year of the reign of our said lord the King of England, and the fourth of France.'

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HALFGROATS OF THE MIDDLE PERIOD OF HENRY VI

LORD STEWARTBY

HALFGROATS of the middle groups of this reign (1422–61), Leaf-Mascle (IV), Leaf-Trefoil (V) and Trefoil (VI), are very much scarcer than the groats. Fewer dies were made and their less intensive use gave rise to more interchanges between one group and another. The following notes are based on the standard work on the coinage of this reign published by Whitton,¹ with the addition of one late Calais mule.

No true coin of group IV is known of London. The London IV obverse is, however, represented by a mule (W.22) described by Whitton as Leaf-Mascle/Trefoil (?), i.e. IV/VI. The reverse of this coin has extra pellets under *tas* and *don*, appropriate to the pellet-marked groups (VIII, X and XI); it also lacks stops, as do many Leaf-Pellet groats. It therefore seems more likely to be a Leaf-Mascle/Leaf-Pellet mule (i.e. IV/VIII). The London IV reverse is to be found only on two VA/IV mules (W.23 and 24a) which both have a leaf below *Meum*.

Of Calais, Whitton listed two varieties of group IV halfgroats (W.29a, b) and noted two more (W.29c and 30) in his addenda. W.29a, 29c and 30 have a leaf above the end of the inner reverse legend, and are therefore true coins of group IV. W.29b, however, lacks the reverse leaf, like the London halfgroats described by Whitton as Leaf-Trefoil A (W.24b and c); this coin is therefore probably to be regarded as a IV/VA mule, and if so constitutes the only Calais representative of group V, since no Calais halfgroats are recorded of group V itself. Since London Leaf-Trefoil halfgroats are the least rare of the three groups under consideration, the lack of true group V halves of Calais is an illustration of how quickly the activity of the Calais mint declined after group IV, reflecting the effect on the wool trade of the ending of the Anglo-Burgundian alliance in 1435.

¹ Whitton 1938–41 (with addenda in Whitton 1941–4).

Of the London Leaf-Trefoil halfgroats, VA, with plain initial cross, is the rarer, listed by Whitton as nos 24b and c, with 23/24b noted in the addenda. While VA is also found muled with the preceding group (VA/IV), VB (W.25a–28b) is muled with subsequent reverses (VI and VIII).

No true halfgroat of group VI (Trefoil) is known of either mint. Whitton describes his nos 25c and 29 of London, which share a reverse die, as Leaf-Trefoil/Trefoil (?) mules (VB/VI); there seems little doubt about the correctness of this since the reverse die involved has a trefoil after *Deum*, like two London groats of VIb (W.35a and b). One other group VI London halfgroat die has been noted by Mr Greenhalgh, with a trefoil after both *Posui* and *Deum*; this die also is known only from VB/VI mules. Of Calais, however, there is a Trefoil obverse die on a recently discovered VIA/IV mule.² This coin has a trefoil after *Gra*, like some London and Calais groats of VIA, and thus probably comes early in group VI, the last group of which any Calais coins are known.

No halfgroats (or any of the lower values) are known of group VII (Trefoil-Pellet) which consists only of London groats transitional between the Trefoiled and Pelleted groups. London halfgroats of the Leaf-Pellet group (VIII) include mules with earlier groups, IV and V. The IV/VIII mule (W.22) has been noted above. Mules of group VIII are also known both ways with group V, those with the earlier obverse (VB/VIII; W.25d and e, 30a and b, and 31) being, as one would expect, more often found than that with the earlier reverse (VIIIb/Vb; W.33). The latter has a leaf before and a trefoil after *London*, appropriate to the groats and halfgroats of Vb.

The resultant picture of the occurrence of halfgroats from dies of groups IV, V and VI is summarized in the following table. The mismatch between the entries for the two mints is absolute.

	<i>London</i>	<i>Calais</i>
IV		X
IV/VA		X
VA/IV	X	
VA	X	
VB	X	
VB/VI	X	
VI/IV		X
IV/VIII	X	
VB/VIII	X	
VIIIb/Vb	X	

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IMITATIONS OF THE CRUX PELLIT COINAGE OF JAMES III

MICHAEL ANDERSON

In a recent article in this *Journal* on the *Crux pellit* coins now attributed to James III of Scotland (Fig. 1) and their imitations,¹ Borys Paskiewicz reviewed the chequered numismatic history of these coins, with nineteenth-century attributions by Lelewel to James II of Aragon as James I of Sicily (1285–95),² and by Duchalais to Jacques de Bourbon, briefly King of Naples (1415–16) as husband of Joanna II of Anjou (1414–35).³ A specimen in the Erslev catalogue of the Thomsen collection with the name 'Karolus' (Fig. 2) instead of 'Iacobus' was attributed to Charles III of

² *NCirc* 102.3 (April 1994), 106.

¹ Paskiewicz 2000.

² Lelewel 1835, vol. 3, 42, and Atlas, pl. XV, 31.

³ Duchalais 1855.

Durazzo as King of Naples (1382–6).⁴ With regard to these 'Karolus' imitations, Paskiewicz refers to an article by Joan Murray and Claire van Nerom⁵ in which they discussed the *Crux pellit* coins and imitations either found in Flanders or currently in Belgian collections, including five with the name 'Karolus' as on the previously unique coin from the Thomsen collection in Copenhagen. When considering the Thomsen specimen in his 1983 article on Scottish imitations,⁶ Ian Stewart (Lord Stewartby) suggested that, if the name 'Karolus' on this coin related to a genuine king of that name, the choice would seem to lie between Charles VIII of Sweden and Charles VIII of France, and he was tempted to give preference to Charles VIII of Sweden, whose reign ended in 1470, if the date of issue of the coins could be taken back into the 1460s. However, if Joan Murray's identification of the coins with the 'threepenny pennies' referred to in a chronicle of 1482 can be sustained, this no longer seems possible, and leaves a choice between a mythical King Charles, whose name was used to obscure the true origin of the coins, and Charles VIII of France, who acceded on the death of Louis XI on 30 August 1483.



Fig. 1. Regular *Crux pellit* coin, type III (author).



Fig. 2. Imitation type III, with 'Karolus Rex' obverse legend (author).

Murray and van Nerom demonstrated the differences between the original coins, which all bear the name 'Iacobus', and imitations, which can have either 'Iacobus' or 'Karolus', and stated that none of the imitations has ever been found in Scotland (or England). They concluded that they are continental imitations, perhaps struck not far from the Flemish coast, citing the wool trade as an explanation for the number of Scottish coins in Flemish finds.

Since Murray and van Nerom published their article, finds of *Crux pellit* coins have been reported from the Basque area of northern Spain. A further three 'Karolus' imitations, plus three 'Iacobus', were found in 1975 during reconstruction work at the church of La Asunción in the village of Lasarte, south-west of San Sebastián, grouped together with five French coins of Charles VIII and Louis XII, twelve Brabant pieces of Philip the Good, Charles the Bold and Philip the Handsome, two Neapolitan *caballos* of Ferdinand I, a Portuguese *ceitil* of John II, and three Castilian *blancas* of Ferdinand and Isabella, as reported by José Ignacio San Vicente at the Spanish National Numismatic Congress in Madrid in 1989.⁷ Anna Balaguer has suggested that these may have been coins of little value deposited in the church poorbox and set aside as impossible to exchange or circulate.⁸ Of particular interest is the fact that one of the Lasarte coins appears to have an inscription commencing 'Karolus Dux' instead of 'Karolus Dei Gra Rex' as on the other coins of this type (Fig. 3).

Also significant for the study of these coins is the 1995 find from the church of San Esteban de Lartaun in Oiartzun, east of San Sebastián, of which a complete catalogue, photographic record and detailed analysis has been published.⁹ During restoration work on the fourteenth-

⁴ Erslev 1873, 212 no. 2555.

⁵ Murray and van Nerom 1983.

⁶ Stewart 1983.

⁷ San Vicente 1989.

⁸ Balaguer 1994.



Fig. 3. Imitation type III, with "Karolus Dux" obverse legend (from Lasarte; reproduced from San Vicente 1989, 552 no. 18. Colección Museo de Arqueología de Álava, Diputación Foral de Álava/Arabako Foru Aldundia).

century church it was thought necessary to remove the floor and subsoil to a depth of 40 cm in order to insert drainage pipes, and the opportunity was taken to carry out an archaeological examination. In the course of this a large amount of material was found, including 900 coins, ranging in date from a small bronze half *centenionalis* of Constantine I to an 1882 two *pesetas* of Alfonso XII. Among these were 76 *Crux pellit* coins: one each of types I, II and III, and 73 imitations, five with traces of the name 'Iacobus', three with the name 'Karolus', seven of a previously unrecorded type with the monarch's name and titles replaced with the legend 'Sit nomen Domini benedi(ctum)' (Fig. 4), and 58 with no legible traces of the obverse inscription at all.



Fig. 4. Imitation type III, with 'Sit nomen ...' obverse legend (Oizartzun; reproduced from Ibáñez Arica, Guereñu Urzelai and López Colom 1997, 302 no. 756).

Ibáñez Arica suggests that, whilst some of the coins, particularly the earliest and latest outliers, are no doubt accidental losses, the majority, although scattered throughout the subsoil of the church, appear to be a systematic deposit and may arise from a custom of placing coins with the bodies of the deceased interred in the churchyard. No less than 871 of the coins belong to the period from the fourteenth to the seventeenth centuries, while 627 of these are of the fifteenth and sixteenth centuries. Of the 252 fifteenth-century coins, the 76 of Scottish type are exceeded only by 78 Portuguese (of a total of 98 Portuguese coins in the group). It is clear, from this find and from others in the area, that Portuguese coins circulated widely in the Basque country and Navarre in the late fifteenth century due to the lack of low denomination Castilian coinage between the death of Henry IV in 1474 and the second reform of Ferdinand and Isabella, 13 June 1497.¹⁰ (Of 28 fifteenth-century Castilian coins in the find, eight were *blancas* of the 'rhombus' issue of Henry IV, introduced in 1471, and eight were *blancas* of the 1497 issue of Ferdinand and Isabella.) Of the 78 fifteenth-century Portuguese coins, 66 were of Alfonso V (1438–81), including 49 *ceitis*, and there was one coin (a *ceiril*) of John II (1481–95). It therefore seems that the Castilian *blancas* were superseded by Portuguese *ceitis*, and that the circulation of these dried up around the time that our Scottish imitations became available. It also seems clear from their context that, at least in the Basque country, the *Crux pellit* coins and their imitations were regarded as currency, and not as mere counters or jettons as suggested by Paszkiewicz.

Xavier Sanahuja Anguera of the Societat Catalana d'Estudios Numismàtics has informed me that the Scottish coins and their imitations circulated not only in the Basque country and Navarre, but also in Catalonia, and this is supported by the fact that the type was copied by Count Hug Roger III of Pallars (1451–1503). His coins, issued before Pallars was conquered by Barcelona in

⁹ Ibáñez Arica, Guereñu Urzelai and López Colom 1997

¹⁰ Gil Farrés 1959, 225–31.

1491, have on both sides a Latin cross in a quatrefoil, exactly as on the reverse of the James III coins, with the initials HR flanking the foot of the cross and the inscription COMES PALLARESIUS (Fig. 5).¹¹



Fig. 5. Pallars imitation (reproduced from Balaguer 1999, 491 no. 143–4).

As mentioned above, Murray and van Nerom suggested the wool trade as the reason for the number of Scottish coins in Flemish finds, and Antonio Roma Valdés has pointed out to me that the areas in Spain where the *Crux pellit* imitations are found are precisely those areas which provided the seamen who also conveyed the wool to the Low Countries. Joan Murray suggested that the coins were never intended to circulate in Scotland, but were an attempt to distribute false Scottish money on the continent. They would certainly have been welcome in northern Spain in view of the scarcity of other small change at that period, as already mentioned. If the Lasarte coin really does read 'Karolus Dux', this may perhaps give a more accurate indication of the ruler intended, making it possible to disregard both Charles VIII of Sweden and Charles VIII of France in favour of Charles the Bold, who died 4 January 1477 and who used both the 'Karolus Dux' title and the 'Sit nomen Domini benedi(ctum)' legend on his coins for Burgundy, Flanders and Brabant. (This possibility was also suggested by Paszkiewicz). Even if the legends on the Lasarte and Oiartzun coins do seem to relate the imitations to the coins of Charles the Bold, they may still have been the product of a freelance commercial enterprise rather than an official Burgundian mint, and need not necessarily have been produced during Charles's lifetime, although a date this early is by no means impossible and may even be supported by the presence of a *Crux pellit* coin in the reclamation deposit which yielded the 1980 Leith hoard of c.1475.¹²

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¹¹ Botet y Sisó 1908, 164–7, and Balaguer 1999, 149 type 143.

¹² N.M.McQ. Holmes, *pers. comm.*

AN UNPUBLISHED DOCUMENT FROM THE NATIONAL ARCHIVES CONCERNING FARTHING TOKENS

TIM EVERSON

WHILE searching in the National Archives for documents concerning the issue of royal and rose farthing tokens, I discovered an interesting set of papers that do not seem to have been noted before, and which throw important new light on the issue and use of these coins.

The document, of 1623, is a set of five sheets of parchment, concerning a judicial case brought by the King's Remembrancer's Office, part of the Court of Exchequer, against the son of the mayor of Bath, about a box of farthing tokens sent to the mayor in 1618.¹ The first sheet is in Latin and the remainder in English. The sheets have been slightly edited to ease understanding and avoid much legal repetition, but apparent gaps and unanswered questions are there in the originals:

Sheet One (Latin: English abstract by Margaret Baker)

James, by the grace of God, King of England, France and Ireland, etc, sends greetings to Thomas Wyatt, gentleman, Richard Gaye, gentleman, George Chapman, gentleman, and Matthew Rendoll, gentleman, appointing them and giving them or two or more of them full power and authority to put to witnesses interrogatories (questions) both on behalf of Edward Woodward, esquire, and Thomas Garrett, gentleman, plaintiffs, and of Matthew Clift, defendant, summoning the witnesses to Bath, Somerset, questioning them individually on oath and taking down the answers in writing on parchment, sealing them and sending them, with the interrogatories, to the Barons of the Exchequer at Westminster within the quindene of St Hilary [14–28 January]. The defendant should have six days notice of the time and place appointed.

Authenticated by Laurence Tanfeld, knight, at Westminster, 28 November 1622, on behalf of the Barons.

Sheet Two

Questions to be asked of the witnesses to be examined on behalf of Edward Woodward Esq. and Thomas Garrett, yeoman, plaintiffs against Matthew Clift, defendant.

1. Do you know the defendant, and did you know his late father, William Clift, Mayor of Bath in the County of Somerset?
2. In or about the month of October 1618, or at any time, did you carry anything for others from London to Bristol or Bath or not? Declare your knowledge.
3. Did you, or your servant, at about this time receive at London or Bristol from the plaintiffs, or one of their servants, from Bristol or elsewhere, a box of farthing tokens to be delivered to William Clift, late Mayor of Bath. What do you know?
4. Did you, or your servant, or any other party directed by you, deliver the said box of farthing tokens to William Clift? Tell the truth.
5. After the box of farthing tokens was delivered from London to William Clift in Bath as you say, where did he, or any of his household, receive them?
6. Do you know or have you heard that the said box of farthing tokens came to the sum of £10, or have you heard some other sum stated?
7. Did William Clift, during the time of his mayoralty, issue forth any or all of the said farthing tokens? What do you know about the receipt of the farthings or their issuing in the City of Bath? Declare your knowledge, hearsay or belief that in any way may help the plaintiffs or acquit the defendant.
8. Do you believe or have you ever heard that William Clift ever received a box of farthing tokens from London or Bristol two or three years ago, or at any time? From whom did he receive them and into whose hands did he deliver them, and did he at any time issue or exchange any farthing tokens, what quantity and to whom as far as you know or believe.

Thomas Wyatt Richard Gaye
George Chapman Matthew Rendoll.

Acknowledgements: I would like to thank Margaret Baker of the Society of Genealogists for providing me with an abstract of the Latin document (Sheet One), and for an insight into the workings of the Exchequer. I am also grateful to Colin Johnston of Bath and North East Somerset Archives for details of William and Matthew Clift, and for checking the Chamberlain's account rolls there for 1618–20.

¹ The National Archives E134/20JAS1/HIL17.

Sheet Three

Enquiry

Depositions of witnesses taken at Bath in the County of Somerset before Thomas Wyatt, Richard Gaye, George Chapman and Matthew Rendoll, gentlemen, on the fourteenth day of January in the twentieth year of his majesty's reign of England, France and Ireland, and in Scotland the 56th [1623], by virtue of His Majesty's Commission out of the Court of Exchequer unto them directed for the examination of witnesses in the case between Edward Woodward and Thomas Garrett, plaintiffs, and Matthew Clift, defendant. As follows:

William Luff of the City of Bath in the County of Somerset, shoemaker, aged about 40, sworn and examined.

1. To the first question, he said that he did not know the plaintiffs but he knows Matthew Clift the defendant and also knew his father William Clift, once mayor of Bath.
2. To the second question, the witness said that in about October 1618 he was a carrier, and used to carry things for divers persons from the cities of London and Bristol to the city of Bath.
- 3, 4, 5. To the 3rd, 4th and 5th questions, this witness said that his servant, John Reedes, at about this time, received from Thomas Tyler, a carrier of Bristol, a certain box and letter addressed to William Clift. The servant gave this to the witness who sent the box and letter by his brother, John Luff, to William Clift. William Clift told John Luff that he would not give him anything for carrying it because it did not concern him, for it was a box of farthing tokens sold unto him to be distributed in Bath for others. When he had distributed them, he would give him (John Luff) something for his pains, and the same promise was made later to the witness (William Luff).
6. To the 6th question, witness said that he did not know what the quantity or sum of farthing tokens was, and he could not answer the other questions.

John Luff of the City of Bath in the County of Somerset, shoemaker, aged about 46, sworn and examined.

1. To the first question, he said he did not know the plaintiffs, but he knew the defendant and also William Clift, his father, former mayor of Bath.
2. To the 2nd question this witness said that at about the time mentioned he was employed on divers occasions by his brother William Luff, a carrier, and he used to carry divers things between the cities of London and Bristol and the city of Bath, and that he used to help drive his horses to and from the city of Bristol and divers other places.
- 3, 4, 5. To the 3rd, 4th and 5th questions, witness said that about that time [October 1618] John Reedes, servant to William Luff, his brother, brought a box fastened and sealed with a letter directed to the then mayor of Bath, William Clift, which he [Reedes] had received from Thomas Tyler, a Bristol Carrier. Reedes had delivered it to William Luff and now brought it to John Luff to deliver to William Clift, which he did. When he demanded something for the carriage, Mr Clift told witness that it did not only concern him, but that when the house (meaning he supposed the Common Council of the City of Bath) had met together, he would afterwards pay for the carriage.
6. To the 6th question, he said that at the time of delivery he did not know what was in the box. But afterwards heard it commonly reported that there were farthing tokens in the box. He also heard that divers of the farthings were distributed to divers persons within the city of Bath, namely to one Mr Sacheffield & Phillip George and one Mr Blackleach, and he also heard that the farthings in the box amounted to the sum of £10.

Tobias Jackson of the City of Bath in the County of Somerset, mercer aged about 37, sworn and examined.

1. To the first question, witness said that he did not know the plaintiffs but that he knows the defendant and he also knew William Clift, sometime mayor and deceased father of the defendant.
- 6, 7. To the 6th and 7th questions this witness said that he, being one of the sergeants of the said city of Bath and then attending on the said Mr Clift, being then mayor, heard William Clift say that he had received around ten pounds in farthing tokens from the Duke of Lennox' officers. He heard that the same William Clift sent to divers tradesmen of the city of Bath to take some of the said farthings. What quantity he does not know, but he heard that part of them were issued to divers persons within the city.

Phillip George of the city of Bath in the County of Somerset, mercer aged about 38, sworn and examined.

1. To the first question, witness said that he did not know the plaintiffs, but he knows the defendant and he knew William Clift, sometime mayor, the defendant's father.
6. To the 6th question, this witness said that he not know whether William Clift ever had this box of farthings but that about 3 or 4 years ago, William Clift had farthings to utter and disperse, but witness never received any farthings from William Clift by way of exchange, but only such as he sometimes received for wares sold to him by this witness. He does not know what quantity of farthings William Clift had or what sum of money they amounted to.
7. To the 7th question, witness said that at about the time concerned, he heard it said that if any did want farthing tokens, they might have them from William Clift as he had farthings to utter.

Bryde Clift of the City of Bath, widow aged about 70, sworn and examined.

8. To the 8th question witness said that William Clift, her late husband, at the time of his mayoralty, received a box of farthing tokens from John Luff, the carrier's brother, of the city of Bath, but she did not know what they were for. She thinks they came to the value of about £5 and her husband did utter them for all necessary expenses in his house and to workmen for wages, and some by way of exchange.

Thomas Wyatt Richard Gaye
George Chapman Matthew Rendoll

Sheet Four

Questions to be administered to witnesses to be examined on behalf of Matthew Clift, defendant, at the suit of Edward Woodward and Thomas Garret, plaintiffs.

1. First. Do you know either of the parties, plaintiffs or defendant, and did you know William Clift of the city of Bath in the County of Somerset? Declare your knowledge.

2. Do you know that the King's most excellent majesty did by his highness' letters patent under the great seal of England, bearing the date the 2nd August in the thirteenth year of his highness' reign in England [1616] for the consideration of the yearly rent of 100 marks [£66 13s. 4d.] of current money of England, did give and grant unto the plaintiffs, Edward Woodward and Thomas Garret, their executors, administrators, deputies and assignees, free and absolute power and authority to make a competent quantity of farthing tokens to be issued among his majesty's subjects within his majesty's realm of England, Ireland and Wales for the space of seven years following the date of the letters patent. Yes or no? Tell the truth of what you know.

3. Do you know that the plaintiffs or their deputies made ten pounds in farthing tokens on or about 27 October in the eighteenth year of his majesty's reign [1621: error for 1618] and did deliver £10 in farthing tokens to William Clift, then mayor of the city of Bath to be issued to his majesty's subjects trading in the city of Bath, to be exchanged by him for the benefit and on behalf of the plaintiffs. If yes, on what conditions was the £10 in farthing tokens delivered? Did he pay ready money or give the plaintiffs other commodities for them? For what reason did the plaintiffs send him farthing tokens? Do you know if William Clift issued or caused to be issued all or the most part of £10 worth of tokens? If yes, how many and to whom? Tell the truth.

4. Do you know whether the said ten pounds of tokens or any part of it came into the possession of the defendant Matthew Clift or to any other person, to use privately, or whether he received any money, profit or benefit by them? Declare the truth

Thomas Wyatt Richard Gaye
George Chapman Matthew Rendoll

Sheet Five

Depositions of witnesses taken at Bath in the County of Somerset before Thomas Wyatt, Richard Gaye, George Chapman and Matthew Rendoll, gentlemen, the fourteenth day of January in the twentieth year of the reign of our sovereign lord James, King of England, France and Ireland, and of Scotland the 56th [1623], by virtue of his majesty's commission out of the Court of Exchequer unto them directed for the examinations of witnesses in a case between Edward Woodward and Thomas Garrett, plaintiffs, and Matthew Clift, defendant, as follows:

John Luff, formerly sworn and examined on behalf of the plaintiffs, now sworn and examined on behalf of the defendant.

4. To the 4th question, this witness said that he not know whether the ten pounds of farthing tokens or any part of them came into the possession of the defendant, Matthew Clift, or that he saw any money, profit or benefit by them.

Tobias Jackson, formerly sworn and examined on behalf of the plaintiffs, now also sworn and examined on behalf of the defendant.

4. To the 4th question, the witness said that he does not know whether the ten pounds of farthing tokens, or any part of them, came into the possession of the defendant, Matthew Clift or to any other to his use, or that he had any money, profit or benefit by them.

Discussion

Although the actual outcome of this case is not known, because verdicts were decided back at Westminster by the Barons of the Exchequer (Sheet One), and recorded in another document (not traced), this is a mere detail considering what the document does tell us.

Concerning distribution of farthing tokens at this time (1618), this is documentary proof that the patent holders approached mayors and probably other local government officials in order to get the farthings distributed around the country. This would be in addition to the tokens being available at the Token House in London.

William Clift was elected mayor of Bath in October 1618, and was immediately sent this box of farthing tokens for distribution. From the carriers, it is clear that the box was sent by sea to Bristol, then England's second largest city after London, and from there by carriage to Bath. John Luff says that the mayor told him that he would have to refer the tokens to the Common Council before he could be paid, which suggests that the farthings were to be paid for by the City of Bath and distributed by them via the tradesmen.

However, the accounts of the City of Bath survive for this period, and there is no mention of this box of farthings. From what Phillip George says (Sheet Three), the mayor paid him in

farthings for some services although he heard you could get them by exchange. The mayor's widow, Bryde, also suggests both payment and exchange, particularly for repairs to the mayor's house (!), and so it seems that William Clift uttered or exchanged them all on his own behalf without reference to the Common Council. The case was presumably brought as a result of the uncertainty as to whether William Clift had paid for the farthings privately, or whether the Common Council of Bath were to pay for them. In 1622 Gerard Malynes wrote that three or four months credit on farthings could be given to encourage local authorities to accept them. This might be another reason why William Clift did not pay for the farthings immediately. It seems that Edward Woodward and Thomas Garrett had still not been paid by 1622 when this case was brought against William Clift's son, Matthew, William Clift having died in 1620.

Another important fact here is the sum of money involved, £10 of farthings. Two thoughts spring to mind. This is not a large sum for a city the size of Bath, but then we do not know what other despatches of tokens there might have been. Ten pounds is 9,600 farthings, and it is clear from the document that this is the actual number of the farthings, and the case does not concern an unknown number of farthings for which ten pounds was paid. A box containing this number of farthings would have weighed in the region of 6 kg. It is unclear how long it took for them all to be disbursed. The other thought is that this is a small sum to require a commission to be sent from the Exchequer to track it down just over four years later. Part of the explanation probably lies in a crackdown on corruption at the Exchequer, and the Court in general, which was occurring at this time under the Earl of Cranfield. Another consideration is that perhaps £10 was a large sum of money as far as Woodward and Garret were concerned, who needed every penny they could get to make their patent profitable.

We learn from these papers that Woodward and Garrett paid 100 marks (£66 13s. 4d.) a year for their letters patent, and so would have to make more than that to be in profit. In fact the profit probably amounted to several hundred pounds a year, but this is a far cry from the £60,000 originally estimated as a profit when the first patent was drawn up for Lord Harington in 1613. One hundred marks a year was also the sum paid by the Duchess of Richmond and Sir Francis Crane for the farthing patent from 1625, but this new evidence shows that it was the accepted worth of the patent as early as 1616.

A document in the Bodleian Library, published by Vaux,² gives an indenture of various debts, covering the period 1616 to 1624, owed to the Duchess of Richmond for farthings issued under the patent by Thomas Garrett, after the Duke of Lennox and Richmond had died. Unfortunately, this does not include a £10 debt from William Clift or the City of Bath, but it does include various other debts, together with notes on whether they were likely to be paid. The largest debts are £50, but the smallest are only 5s., and show that Woodward and Garrett kept track of even very small sums of money. This document confirms that £1,000 per year was the most that the farthing patent could be expected to raise.

The date of Woodward and Garrett's patent is given in the document published here as 2 August 1616, whereas the Calendar of State Papers Domestic lists it under 25 July 1616. The later date is probably the actual date of the proclamation. Edward Woodward and Thomas Garrett were London goldsmiths who were recommended to the patent by the Duke of Lennox. Although they appear to have held the patent until 1621, when new letters patent were issued giving the patent directly to the Duke of Lennox and the Marquis of Hamilton, Peck suggested that Lennox was the real 'owner' of the patent throughout.³ This document appears to confirm this assumption when Tobias Jackson, in his evidence (Sheet Three), confirms that Woodward and Garrett were officers of the Duke of Lennox. As for the patent being in their name in 1616, this would appear to be for reasons of political expediency. The 'Addled' Parliament of 1614 had complained bitterly about monopolies (like the farthing tokens) being handed to the King's favourites, so when the farthing patent became available again in 1616, James I gave it to Woodward and Garrett, rather than directly to the Duke of Lennox. He was able to award the patent directly to Lennox (and the Marquis of Hamilton) in 1621 when the fuss had died down.

² Vaux 1876.

³ Peck 1964, 20.

This interesting document thus throws light on farthing distribution, patent holders, profits and politics, and is a fortunate survival, occurring because nobody paid Woodward and Garret for a £10 box of farthing tokens in 1618.⁴

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DANIEL DEFOE, SON OF A TOKEN-ISSUER

R.H. THOMPSON

THE writer and businessman Daniel Defoe (1660?–1731) is best known as the author of *Robinson Crusoe* (1719), and of other novels such as *Moll Flanders*, *Col. Jack* and *Roxana*. However, his writings also include the not entirely fictional *Journal of the Plague Year*, and *A Tour thro' the whole island of Great Britain*, an important source on the economic development of the early eighteenth century. His significance in this area is such that Professor J.R. Moore called him 'one of the great pioneers in economics', and Professor Mayhew, in his history of sterling coinage, has entitled one of his chapters 'The age of Daniel Defoe and Adam Smith'. Defoe anticipated the latter's use of the phrase 'The Wealth of Nations' by more than seventy years.¹

Among the hundreds of titles published by Defoe, the only specific consideration of the problems of small change seems to be *Some farther Account of the original Disputes in Ireland about Farthings and Halfpence* (1724), but his *Complete English Tradesman* (1726–7) brings him close to the subject of token-issuers. The chapter 'Of tradesmen ruining one another by rumour and clamour' recognises credit as a type of currency. In *A Journal of the Plague Year* the narrator, H.F., takes a letter to the Post-house, where a purse lay in the middle of the yard, but in that time of plague it was only taken up with red-hot tongs after being singed with gunpowder, and the contents shaken into a pail of water. The money therein was about thirteen Shillings, some smooth Groats, and *Brass Farthings*, so Defoe shows an awareness of tokens, if not of a family connection with them. The pseudonymous H.F. may have been based on Daniel's uncle Henry Foe (d.1675), a saddler in Whitechapel.²

It is of some interest, therefore, that Defoe may well have been the son of a token-issuer. This note is confined to the task of establishing that possibility, and does not attempt to integrate token-issuing into Defoe's thought.³ By 1703 D. Foe had dignified his name as Defoe, and was using the arms *Per chevron three Griffins passant counterchanged*, which appear below the portrait reproduced in *ODNB*. This was despite his earlier animadversions on 'the tradesmen of England, as they grow wealthy, coming every day to the Herald's [i.e. Heralds'] Office, to search for the coats-of-arms of their ancestors, in order to paint them upon their coaches, and engrave them upon their plate, embroider them upon their furniture, or carve them upon the pediments of their new houses'.⁴

His father is known to have been James Foe (d.1706), who was apprenticed to a Master of the Butchers' Company, but went on to become a prosperous tallow-chandler in the London parish of

⁴ Peck 1964 discusses most of the previously known documents about the farthing patents and their holders in the introductions to his chapters on James I and Charles I. *ODNB* also covers all of the patent holders.

¹ Moore 1935, 6; Mayhew 1999, 103–31.

² For the references to *Complete English Tradesman*, see Defoe 1987, 132, and 240 in chapter headed 'Of credit in trade'. Muldrew 1998, 155; Defoe 1992, 87; Bastian 1981, 11, 45.

³ The likely identification was mentioned by the present writer at the 2005 Token Congress, but the location was not then confirmed.

⁴ Defoe 1987, 216, in chapter headed 'Of the dignity of trade in England'; Wales and Hartley 2004, ii, 544, n. 10; Bastian 1981, 188, found a first use of the prefix in 1695.

St Giles Cripplegate. His wife, Defoe's mother, Alice, died between 1668 and 1671.⁵ In the light of these forenames, rare surname, and trade, Defoe's parents must be represented on the following token (Alice of course by the initial A), though the location is a problem:

Obv. • **IAMES • FOE • AT • NEW** around the Tallow Chandlers' arms

Rev. • **STREET • CORNER • 1658** around • **F** • above **I • A**

Williamson,⁶ London 2055 (punctuation modified from knowledge of other tokens).

The arms of the Tallow Chandlers are illustrated in, for example, Boyne, pl. 2, so they should have been correctly identified. However, while there is no reason to doubt the existence of such a token (see Appendix), there is every reason to question its placing in Williamson under NEW STREET, COVENT GARDEN (subsequently New Row, WC2). The explanation for this must be the prior existence of that heading in Akerman and Boyne, with more tokens listed than under the next heading NEW STREET, SHOE LANE. This was a lazy assumption, and does not deserve to be considered more than one possibility. In the circumstances of James and A[lice] Foe it deserves less.⁷

Their only son was probably born in London, or just outside the City, during the autumn of 1660, but, as Professor Backscheider has pointed out, during that time of political unrest the lives of many citizens were disrupted, and normal record-keeping was overlooked. The surviving parish registers for St Giles Cripplegate do record in 1657:

Mary daught' of James Foe Tallowchandler & of Ailce Not christened but borne November 13;
and similarly in 1659:

Elizab' daugt' of James Foe tallowchand' & of Ailce not Christe: borne June 19.

According to Professor Novak, it is likely that the Foes felt that the manner of baptism practised in their parish church was unacceptable, and they need not have been Quakers (as suggested by Bastian in the case of Alice) to have come to such a conclusion. Since the token was dated for the year between these two births, it is certain that James and Alice Foe were living in the same parish when the token was issued.⁸

Yet there was no New Street in the parish of St Giles Cripplegate.⁹ Harben's standard dictionary mentions three City of London streets of the name recorded in the seventeenth century:

- i New Street subsequently Burgon Street, off Carter Lane in the parishes of St Gregory by St Paul's, St Ann Blackfriars, St Andrew by the Wardrobe, and St Mary Magdalene, Old Fish Street, and in Farringdon ward Within (Ogilby and Morgan 1992 [hereafter O&M], 34-17, k66).
- ii New Street otherwise West Harding Street, off Fetter Lane in the parishes of St Bride and St Dunstan in the West, and in Farringdon ward Without (O&M 22-G4), occurring as *Westharding Street alias New Street* in 1664.
- iii New Street subsequently Little New Street and New Street Square, between Shoe Lane and Fetter Lane in the parish of St Bride, and again in Farringdon ward Without (O&M 22-G4), first mentioned 1637-8.
- iv In the Westminster parish of St Martin in the Fields there was a fourth, the one selected by the cataloguers: New Street subsequently New Row, named on Morgan's 1682 map.¹⁰

None of the above has any known Defoe connection. By 1667 the Foes were living in the parish of St Stephen Coleman Street, in Jones's Rents off Swan Alley (O&M 26-F12); by 1671 James Foe was established in the parish of St Benet Fink, in French Court off Threadneedle Street (O&M 27-G14, h44); by 1678 he had remarried, but in 1683 he was back in Jones's Rents, lodging with the widow Schapelinck.¹¹

⁵ Backscheider 1989, 24 (reproducing the record of his apprenticeship), 27; and in *ODNB*.

⁶ Williamson 1889-91, 684.

⁷ Akerman 1849, 144-5; Boyne 1858, 273-4; Williamson 1889-91, 684-5.

⁸ *ODNB*; Bastian 1981, 9 (citing Guildhall Library MS), and 16; Novak 2001, 22.

⁹ For a supposed token of 'New Street, ?Cripplegate' see the forthcoming Norweb Tokens Part VII under Fore Street.

¹⁰ Harben 1918, 435, 436, 620; Ogilby and Morgan 1992; Gover 1942, 181.

¹¹ Bastian 1981, 9, 30, 88; Bastian 1964, 84. Bastian 1964, 85, mentions that the address of Fore Street, Cripplegate, given for James Foe by Wright 1894, 85, could not be found in the Butchers' Company records and appears to conflict with other evidence.

- v A fifth New Street needs to be added, which in Harben is only a reference: Chancery Lane (O&M 21-G2), recorded in the thirteenth century as *Newstrate* etc., and as *Convers lane* commemorating the House of Converts in the lane, but 'the name seems to have been altered to "Chauncellereslane" in the time of Ed. III'. Stow's concentrating on the thirteenth century, when the street was new, has diverted even Harben's attention from the names actually used by Stow in the seventeenth century: *New streete (or Chancery lane)* and *Newstreet or Chauncerie lane* in 1603, *New streete (or Chancelar lane)* in 1603, 1618 and 1633. New Street was still an alternative for Chancery Lane.¹²

This is evidently the correct identification of NEW STREET on the token, for in 1673 James Foe was one of several defendants in a complicated Chancery suit concerning the lease of a house in Chancery Lane.¹³ Therefore the token should be entered under CHANCERY LANE *neighbourhood* (City, Farringdon ward Without and Holborn and Westminster), the reading being AT NEW STREET CORNER, cf. *New streete (or Chancery lane)* 1603 Stow 375=ii. 22. At its north end Chancery Lane was on the corner of High Holborn (O&M 21-F1), and to the south on the corner of Fleet Street (O&M 32-I3), all major thoroughfares.

The implications for the evidence of tokens are somewhat alarming. While it is not surprising that a man should practise a trade different from the Company in which he had been apprenticed, it is a surprise that he should use arms appropriate to that other Company. It is also a surprise to find evidence that the locality given on a token was not where the issuer lived, but where he traded. A further surprise is that this token bears the initial of the issuer's wife, though her connection with that address was not domestic. As early as 1658 this token-issuer, if not exactly 'something in the City', was travelling outside his parish to work. Yet the journey to work has been seen as the distinguishing mark of a society later than 'the world we have lost'.¹⁴

Biographical details of Daniel Defoe's token-issuing father may be set out as follows:

FOE, James (1630–1706), baptised Etton, Northamptonshire, 13 May 1630, the fourth child of Daniel Foe (died 1631), yeoman, and of Rose his wife. Apprenticed 28 May 1644 to John Levitt, then Master of the Butchers' Company, but described on his death 1666 as 'tallow-chandler', a trade which depended on butchers' waste products. James Foe likewise, on completing his apprenticeship in 1652, became a tallow-chandler, but soon diversified his business activities and branched out into overseas trade. Married Ailce i.e. Alice (d.1668x1671), dates and maiden name unknown. Daughter Mary born 13 November 1657, Elizabeth 19 June 1659, both in parish of St Giles Cripplegate; son Daniel b.1660?, afterwards Defoe (d.1731). In 1671 James was referred to as *generosus* (gentleman), and in 1673 as 'Merchant and Citizen of London'. Had married again by 1678. Assistant in the Butchers' Company 1679, Renter Warden 1680 (a post created to relieve the Master of financial responsibilities); auditor of the previous year's accounts 1683.¹⁵ James's character is indicated by a reference he wrote in 1705 for Sarah Pierce, who 'behaved herself so well, that we recommended her to Mr Cave, that godly minister, which we should not have done, had not her conversation been becoming the gospel'.¹⁶ Moved in autumn 1705 from his seventeen-window house in Throgmorton Street to rented rooms at the Bell on Broad Street. His wife Elizabeth died that December, buried in Bunhill Fields. He made his last will 20 March 1705/6 (proved 25 February 1706/7); buried in 'Bunhill Ground' 21 December 1706.¹⁷

Professor Novak sees in James Foe the steadiness and reputation of an honest and dependable businessman, named as trustee in a number of wills, who was probably close to being that ideal tradesman whom Defoe canonized in the *Complete English Tradesman*: a man who regulates his time, who knows the language of his trade, who is not distracted by the schemes of projectors, or

¹² Stow 1971, 375=ii. 22, 395=ii. 42, 444=ii. 91; Stow 1618, 746, 824; Stow 1633, 435, 487.

¹³ Guimaraens 1912, 241; Bastian 1981, 33; Bastian 1964, 84.

¹⁴ Laslett 2000, 13–4; Novak 2001, 23.

¹⁵ Bastian 1981, 10, 30, 88; Bastian 1964, 84; Jones 1976, 54.

¹⁶ Wilson 1830, i. 7.

¹⁷ Bastian 1981, 167; Bastian 1964, 86; Novak 2001, 311, 312 n.48.

by the lure of politics or society, and actually takes pleasure in his work.¹⁸ Novak suggests also that James and Alice Foe had a 'companionate marriage', based on the love of parents for each other and for their children.¹⁹ The token may be seen to symbolize such a marriage, with its triangle of initials:

F
I A

APPENDIX

The record in Williamson does not give the authority of an actual specimen of James Foe's token. There is none in the Norweb Collection, nor, as their curators kindly report, in the Ashmolean Museum, the British Museum, the Fitzwilliam Museum, or the Museum of London. The token had not been catalogued by Boyne in 1858, but in an interleaved copy of Boyne which carries the armorial bookplate of Nathan Heywood (1856–1918) the token has been inserted in pencil, probably by Heywood himself. After 1889 it could have been copied from Williamson, but a space in place of AT in the first of two insertions may suggest transcription from an imperfect specimen. Nevertheless, the piece is not amongst Heywood's seventeenth-century tokens which Harold Raby bought en bloc in February 1919, and bequeathed in 1958 to Manchester Museum; other insertions are annotated *Sm[allfield?]* and *F[?]*.²⁰ Apparently a single specimen has passed through the sale-rooms, in lot 57 of the 1907 sale of 3,500 seventeenth-century tokens (etc.) belonging to an unidentified 'Well-known Collector', but the purchaser is not marked in the British Numismatic Society copy of the catalogue, and that piece has not been traced.²¹ For helping to search for a specimen I am grateful not only to the relevant curators, but also to Messrs Michael Dickinson, Peter Preston-Morley, John Rainey, John Theobald, and to Mr Roy Wilde, Clerk to the Worshipful Company of Tallow Chandlers.

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¹⁸ An accurate text of *The Complete English Tradesman*, edited by John McVeagh, is due to be published in 2006 as Vols 7–8 of the 'Religious and Didactic Writings of Daniel Defoe' (London: Pickering & Chatto).

¹⁹ Novak 2001, 18–9.

²⁰ I am grateful to Keith Sugden, Keeper of Numismatics, Manchester Museum, for details of the Heywood tokens. Heywood's copy of Boyne 1858, now owned by the present writer, has a pencilled insertion facing p. 273. A second insertion faces p. 274 and presumably ascribes the token to New Street, Shoe Lane.

²¹ Glendining & Co., 25–26 September 1907; Manville and Robertson 1986, 212. Mr Michael Dickinson was able to identify this reported specimen from his scanning of catalogues and lists since the 1890s, also Williamson as annotated by W. Gilbert, and I am most grateful to him.

TURNING THE FLY

G.P. DYER AND P.P. GASPAR

At about 9 o'clock on the morning of 20 December 1798 James Turnbull drew a pistol on a young apprentice moneyer at the Tower and robbed him of more than 2000 newly-struck guineas – a dramatic but happily rare incident in the long history of the Royal Mint.

The story of Turnbull's capture, trial and execution need not be retold here, but the court proceedings are nevertheless of real interest to students of minting technology.¹ For at the time of the robbery Turnbull, a soldier stationed in the Tower, had been one of four labourers operating a coining press and the evidence subsequently presented in court provides a glimpse of the day-to-day working procedures of the late eighteenth-century Royal Mint. In one particularly important respect, indeed, they throw light on the speed achieved by a manually-operated screw press under normal working conditions.

Briefly, Turnbull along with a colleague in the Guards and two members of the Tower Hamlets militia had been recruited early that morning 'to turn the fly', that is to say, to swing the arms of the press in order to control the movement of the large central screw which in turn controlled the movement of the upper die. It was the job of the fifth member of the team, the apprentice moneyer Thomas Finch, 'to feed the fly', a skilful and nimble-fingered task that required him to place a blank disc of metal on top of the bottom die, wait for it to be struck between the dies by the descending screw of the press and then, as the upper die and the screw recoiled, to flick away the struck coin and insert a new blank. The 'amazing' dexterity of an apprentice, like Finch, putting in the blank with his forefinger and thumb and flicking out the struck coin with his middle finger, is described in a sixpenny guidebook of the Tower, published in 1788.² Concentration and rhythm were clearly vital and the story that a moneyer could feed the press and read a newspaper at the same time must surely be apocryphal (though not, perhaps, the associated suggestion that the labour was 'musically-timed').³

The team had begun work at about 7 o'clock, Finch having been issued with eight bags of guinea blanks by a senior moneyer, Richard Franklin. They continued until 9 o'clock or just before, when as was the custom Finch invited the four men to stop for breakfast, and it was at this point that the robbery took place. The timings, which are crucial for our calculations, seem secure enough from the evidence given in court by Finch and they are corroborated by Franklin, who was in the nearby Mill Room when the alarm was raised. Turnbull, in a subsequent written confession, put the time for breakfast at about five minutes before 9 o'clock, while in court a witness claimed with helpful if surprising precision that the escaping Turnbull had come into the Cat's-hole public house at about eight minutes past 9 o'clock, the public house being perhaps five or six minutes' walk from the Press Room of the Mint. So, give or take a few minutes, we can feel reasonably confident in estimating at two hours the working time of the team that morning.

What of their production during that time? Finch had begun with eight bags of guinea blanks, each said to contain 668 pieces, the nearest whole number to make up a gold journey of 15 lbs troy. This gives a total of 5344 blanks, but unfortunately the evidence of neither Finch nor Franklin is clear as to how many of these had been converted into guineas before the robbery. A minimum figure is 2308, that being the number of guineas that Turnbull stole, and since it can be safely supposed that a bag would not have been left partly uncoined this minimum figure may be increased to 2672, the contents of four complete bags. What in fact may be the true figure is provided by Turnbull himself, who said in his evidence to the court that six journeys had been finished, equivalent to 4008 guineas.

If Turnbull's figure is to be believed, then we can say that over a period of two hours the press team had struck almost exactly 4000 coins. This gives a sustained average rate of production of

¹ Royal Mint Library, 'The Trials of James Turnbull &c for robbing the Mint' and associated papers in *Trials*, 1799–1834.

² *An Historical Description* 1788, 64.

³ *Report of the Commissioners* 1849, 91.

nearly thirty-five coins a minute and if, as must have been the case, the press was occasionally at rest while blanks were emptied out of a bag and struck guineas were put into a bag, the speed when the press was actually in motion must have been faster still. It is conceivable, too, that the press may have stood idle for a few minutes to allow one or both of the dies to be changed, though whether this was necessary is not recorded in the court proceedings. In any event, whatever the detail, there is welcome evidence here of the rate of production that could be sustained by the normal operation of a press over an extended period of time.

The information to be gleaned from the court proceedings is usefully supplemented by none other than Matthew Boulton, who had visited the Tower just a few months earlier to assist the Privy Council's Committee on Coin in its investigation of the Mint. In a report of May 1798 he gives the speed of a five-man team as forty-four to forty-five guineas a minute.⁴ This seems to be the speed of the press while it was in operation and is therefore a less helpful measure of output than the sustained rate achieved by Finch and his team in December. But, assuming that Finch's team could operate at the same speed as that observed by Boulton, the implication is that a press might stand idle for perhaps a quarter of the time, giving the team an opportunity to rest and enabling dies to be changed and blanks and coins to be fetched and carried.

That there might be extended breaks in production during the day is confirmed by an earlier but undated reference in the Newton Papers, where Sir Isaac Newton reckoned that a press might be active for five hours a day, with the remaining four or five hours being spent 'setting or changing the dies, bringing the blanks & carrying back the new moneys'.⁵ The context of this reference is an estimate of the cost of producing copper coins, and Newton calculated that a five-man team similar to that in 1798 was capable of coining at the rate of fifty-four pieces a minute. The daily average is thus between twenty-seven and thirty a minute, a rate not entirely dissimilar to that being achieved at the end of the century. A second document, neater and not in Newton's hand, unfortunately seems to halve this rate of output but does not specify the speed of a press while it is in operation.⁶

An additional reference is provided by the *Crosby Records*, where a visitor to the Tower, William Blundell, notes against the date 3 June 1676: 'I saw twenty-six guineas impressed in the space of one minute, measured by my minute-watch'.⁷ Given that the men may have been stimulated by the presence of a spectator with a watch, this figure seems surprisingly lower than that indicated by the later references, but it may be relevant that Blundell speaks of three labourers and not four.

Ultimately it is the question of the Mint's capacity in the eighteenth century which gives the speed of the press and its sustained rate of output its real relevance. If the average rate during the working day is something like thirty a minute, which is what it seems to be, then a single press should be capable of a daily production of perhaps 10,000 coins and an annual production of perhaps 3,000,000 coins. To put that figure in perspective, during the last fifty years of the eighteenth century the average production of the Royal Mint was about 3,250,000 coins a year. This average conceals a wide variation from nothing at all in 1780 to over 11,000,000 coins in the peak year of 1775, but in nearly thirty of the fifty years the total annual output was probably comfortably within the capacity of a single press.⁸ And there is evidence that at the end of the century the Mint may have had at least nine presses and possibly thirteen.⁹

It is true that the demands on the Mint might not have been capable of being spaced out evenly over the course of the year and it may also be true, with larger coins requiring a heavier-framed press, that the presses may not have been readily interchangeable and may have operated at different speeds and with different numbers of labourers. Certainly, contemporary descriptions

⁴ National Archives [hereafter NA], BT6/118, fos. 107–111 (108).

⁵ NA, MINT 19/2, fol. 418. Another draft of the estimate (fol. 419) reduces the time the press is in operation to four and a half hours but retains the striking rate of fifty-four a minute, while Newton uses a similar estimate of 50/55 pieces a minute for the silver denominations at the time of the Great Recoinage.

⁶ NA, MINT 19/2, fol. 399.

⁷ Gibson 1880, 141–2. We originally owe this reference to Farquhar 1909, 214.

⁸ Dyer and Gaspar 1992, 439.

⁹ Dyer and Gaspar 1992, 427.

refer to presses by denomination, but it is clear that this is not as exclusive as it seems, since the Newton Papers indicate that half-crown presses could be used for halfpennies and shilling presses for farthings, while accounts prepared in connection with the Great Recoinage of 1696–8 include a charge for ‘fitting up’ two half-crown presses for shillings.¹⁰ We therefore draw support for the view that we have expressed previously that the eighteenth-century Mint was not crippled by lack of capacity, but has been unfairly maligned because of the inaction of Government in reforming the currency.¹¹

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VARIATION IN PENNY REVERSES OF 1860–1 FROM RE-CUT PUNCHEONS

PAUL M. HOLLAND

FOUR important variations have been discovered in toothed border ‘LCW below shield’ pennies of 1860–1 that have apparently gone unnoticed by previous authors. These variants arose from the re-cutting of three of the puncheons for producing reverse dies for pennies of 1860–1, which together with use of the unmodified puncheon for 1860 have resulted in four distinctive reverse types. The features on the unmodified type, which originated from the common matrix used for all three puncheons, closely resemble those of the previous beaded border reverse type and depict a relatively smooth sea to the left of the shield. The first re-cut puncheon type shows a very distinctive incuse ‘rock line’ plus a rougher sea, and has also only been observed on 1860 dated pennies. The other two types are more subtle, with the ‘smooth’ sea being re-cut to provide a more distinctive pattern of waves but without the rock line. One of these has only been observed on 1860 dated pennies, the other on 1861 dated pennies. Careful analysis shows that these four puncheon types for the toothed border ‘LCW below shield’ pennies were used to produce numerous working dies. The numismatic significance of the observed variants is that they provide a useful insight on intentional design changes made during the bronze re-coinage of 1860, and show evolution toward the standard ‘no signature’ penny reverse type of 1861–74, which exhibits both a distinctive rock line and sharply defined waves for the sea.

The ‘LCW below shield’ penny reverse is the first of the ‘toothed’ border reverse die types, continuing the placement of the designer’s initials below and to the left of the shield as in earlier beaded border pennies. This reverse type corresponds to Peck Reverse C*,¹ Freeman D,² and Gouby d,³ and, based on Freeman’s survey, was used for more than 90% of 1860 pennies and perhaps 40% of those of 1861.⁴ The design elements closely resemble the previous beaded border penny reverse (Peck reverse type C, Freeman C, and Gouby c), so closely in fact that Peck kept the same letter designation, adding a star to distinguish it. To help simplify the discussion here, we

¹⁰ NA, MINT 19/2, fol. 399 and MINT 1/6, fos. 64–66.

¹¹ Dyer and Gaspar 1992, 399.

¹ Peck 1970, 422.

² Freeman 1985, 28.

³ Gouby 1986.

⁴ Freeman 1966, 12.

will use D to label the reverse without re-cutting, following Freeman's notation (Gouby's would be the same but in lower case), D* to designate the first re-cut reverse type with incuse 'rock line', and D' and D'' to designate the second and third re-cut sea types.

In reverses C (Fig. 1a) and D (Fig. 1b), there is little to differentiate the sea from the rocks, and one might suppose that Britannia is 'floating' on water. The re-cutting in reverse D* is apparently designed to address this deficiency, as shown in the close-up in Fig. 1c. The incuse rock line of the re-cut reverse can be clearly seen, along with a slight flattening of the edge of the shield just above it. Interestingly, the re-cut rock line of D* is also clearly visible in Peck's book,⁵ and can even be



(a) Reverse C, beaded border



(b) Reverse D, toothed border



(c) Reverse D*, 1860 with 'rock line'



(d) Reverse D', 2nd 1860 re-cut type



(e) Reverse D'', 1861 re-cut type



(f) Reverse E, 1860 LCW below foot

Fig. 1. Close-up comparison of LCW reverse types (see text).

⁵ Peck 1970, pl. 36N and pl. 33 for P. 1630.

seen in Weightman's 1907 article in this journal.⁶ Gouby's photo of reverse d shows reverse D' which is also illustrated in the Spink catalogue,⁷ while the lower quality images in Freeman's books appear to show D*.⁸ It should be pointed out that none of these authors distinguish between reverse D, D' and D*.

Reverse D' is the second re-cut type of 1860 with a strongly incuse area above LCW shown in Fig. 1d, and Reverse D'' is the re-cut type of 1861 with a pattern of incuse lines in the sea only (Fig. 1e). The strongly patterned sea of Reverse E, the 1860 LCW below foot type (Peck reverse D, Freeman E, Gouby e),⁹ is shown for comparison in Fig. 1f.

That Reverse D* has arisen from a single re-cut 1860-dated puncheon, which has been used to make multiple working dies, is evident from the observation of numerous reverse D* coins exhibiting different reverse die cracks, together with the fixed position and spacing of the final date numeral. Microscopic examination also shows the re-cut 'rock line' to be identical on each of them. Because *incuse* lines are observed on the coins, this must have arisen from a re-cut puncheon and not from a matrix since otherwise raised lines would have resulted. That the purpose of the re-cutting was to define a clear rock line to separate Britannia's perch on the rocks from the sea is somewhat speculative, but is supported by subsequent changes in the design of the penny reverse. For example, Figs 2a and 2b show corresponding close-ups of the first penny reverse which omits LCW (Peck reverse type E, Freeman F, and Gouby f),¹⁰ and of the final 'standard' penny reverse type used from 1861–74 (Peck reverse type F, Freeman G, and Gouby g).¹¹ Reverses F and G both show a distinctive demarcation from the sea, with rocks in high relief and a rock line in lower relief, respectively.

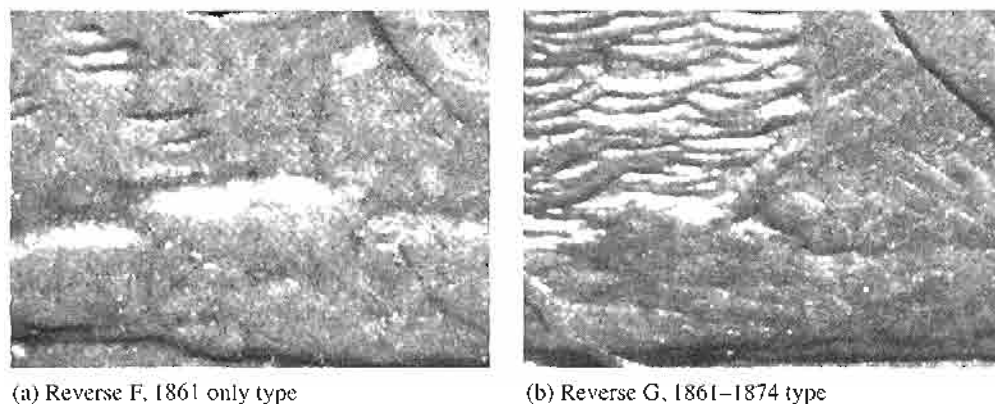


Fig. 2. Close-up comparison of 'no signature' reverse types (see text).

That both Reverse D' and D'' are also from re-cut puncheons is again demonstrated by the presence of incuse lines and the observation of multiple coins with different reverse die cracks. The re-cutting on these types is more subtle than that on Reverse D*, and only became apparent to the author during careful examination of high grade 1860 and 1861 dated pennies. The pattern of waves above Britannia's foot on both of these re-cut puncheon types is distinctive, as shown in Fig. 3 in comparison to Reverses D and D*. The re-cutting of the sea in Reverse D' is especially bold, so that it resembles the sea of Reverse E (Fig. 1f). The Reverse D'' re-cutting involves numerous incuse lines as in Fig. 1e. Numismatic analysis shows that Reverse D'' originated from re-cutting a Reverse D puncheon with the final date numeral removed, allowing working dies to

⁶ Weightman 1907, pl. 1, 1860 serrated circle 1.

⁷ Gouby 1986; Spink 2003.

⁸ Freeman 1966 and 1985.

⁹ Peck 1970, 422; Freeman 1985, 28; Gouby 1986.

¹⁰ Peck 1970, 423; Freeman 1985, 30; Gouby 1986.

¹¹ Peck 1970, 423; Freeman 1985, 31–2; Gouby 1986.

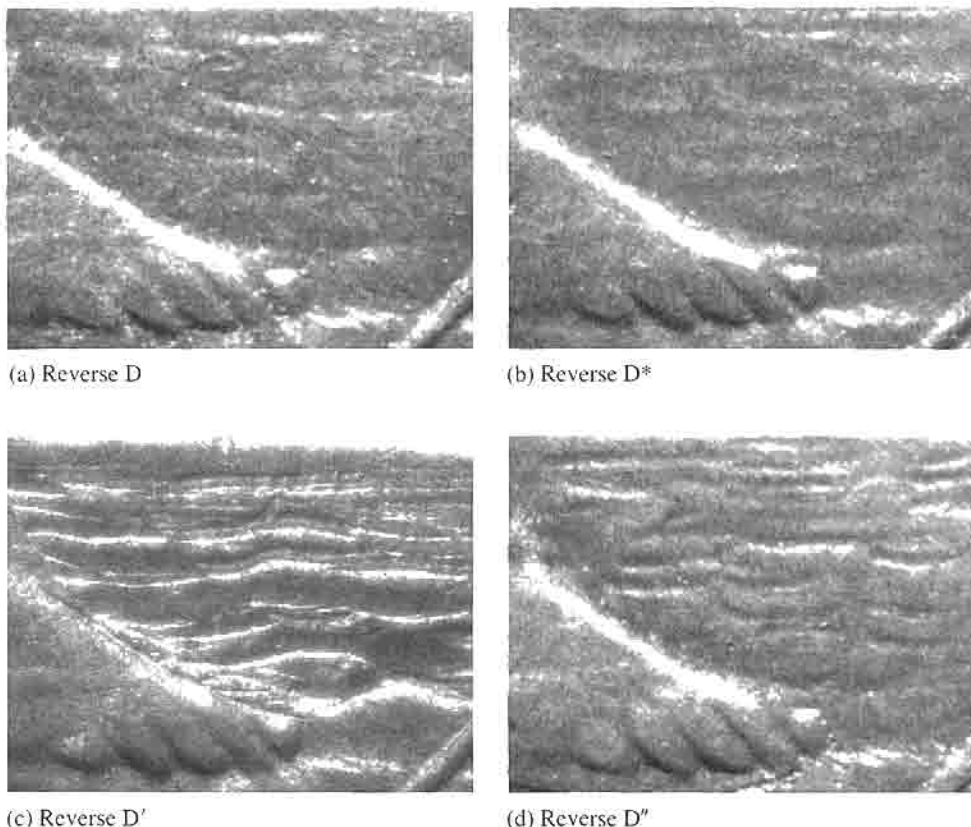


Fig. 3. Comparisons of sea above foot on Reverse D types (see text).

be dated 1861 by the addition of the final date numeral by hand. This is evident from the variation in the position and spacing of the final date numeral observed on the coins themselves.

A survey of coins in the author's reference collection was carried out to assess the distribution of Reverse D, D*, D' and D'' coins by date and obverse die type. It should be emphasized that although these survey coins have a bias towards the scarcer varieties, the relative ratio of reverse D, D*, D' and D'' coins for each obverse type should be largely unaffected. The condition of the coins surveyed was also a factor, with coins down to a grade of about fine being suitable for distinguishing between Reverses D, D* and D', whereas coins in somewhat better condition were needed to identify Reverse D''. The results of this survey are presented in Table 1. This lists the number of Reverse D, D*, D' and D'' coins observed by their die pairings with different obverse types during 1860–1. It should be noted that the obverse type labeled 4* is from a Freeman Obverse 4 puncheon with the ribbon end centrally cut (Gouby Obverse G).¹² Through the generosity of other collectors of British penny varieties, a further selection of coins was examined for Reverses D, D*, D' and D''. The results of this examination confirmed the initial findings, although one additional die pairing (1860 6+D*) was noted and this is indicated in Table 1 with an asterisk (*).

As an examination of Table 1 makes clear, Reverses D, D* and D' are only observed on 1860 dated pennies and Reverse D'' on 1861 dated coins, which is consistent with the puncheons for Reverses D, D* and D' being dated 1860, and that for D'' occurring with the final date numeral removed. It is interesting to note that it is the re-cut Reverse D* type that is particularly paired with earlier obverse types, including the rare beaded/toothed 'mule'. This suggests that re-cutting to provide clear demarcation between the sea and rock was recognized as desirable and that the

¹² Gouby 1986.

TABLE 1. Numbers of Reverse D, D*, D' and D'' pennies observed by die pairing

Year	Pairing	Rev D	Rev D*	Rev D'	Rev D''
1860	Obv 1		1		
	Obv 2	8	14		
	Obv 3		4	5	
	Obv 4	6	4		
	Obv 4*	9	8		
	Obv 5	8			
1861	Obv 6	7	*		
	Obv 2				3
	Obv 3				1
	Obv 4				11
	Obv 4*				1
	Obv 5				7
	Obv 6				7

*reported by another collector

Reverse D* puncheon was created very early during the transition from beaded to toothed border pennies. Such a puncheon could be used to make many different working dies. However, the observation of several Reverse D* coins with damaged (or repaired) legends, including the 1860 ONF variety paired with obverse 4*, suggests that this puncheon may have begun sustaining significant damage. While such a damaged puncheon can continue to be used for making dies, this requires the re-punching of individual letters and other repairs, and the puncheon would eventually be taken out of service. This might help explain why Reverse D* was used primarily with the earlier obverses. Reverse D', which exhibits a strongly patterned sea, is only observed to be paired with the Obverse 3, as is also the case for Reverse E, which it resembles. The unmodified Reverse D type was apparently used throughout 1860, and since it is presumed to have been made directly from a Reverse D master die, it is possible that several nearly identical Reverse D puncheons were fabricated. Because Reverse D'' was produced from a re-cut puncheon, it should be classed as a distinctive variant, as in the case of Reverse D* and D'.

The results of this study demonstrate that the reverse dies for toothed border 'LCW below shield' pennies can be divided into four distinctly different types based on differences in the puncheons used to produce them. The observed re-cuttings appear to be deliberate attempts to enhance the demarcation between the sea and Britannia's perch on the rocks by sharpening the relief of waves in the sea and by defining a rock line. This interpretation is supported by comparison with subsequent 'no signature' reverse die types, especially Reverse G. From a dedicated variety collector's point of view, there are only a few additional bronze penny die pairings to acquire, all 1860 dated coins. This includes one each of obverses 2, 3, 4, 4* and 6, although it is certainly possible that other die pairings may be discovered in the future. It should also be noted that Royal Mint die sinkers often 'touched up' individual working dies, so other minor variants may exist. That distinctive 'LCW below shield' reverse die variants resulting from re-cut puncheons have gone unnoticed until now demonstrates that surprises still remain, even in a series as extensively studied as this one.

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COIN REGISTER 2006

EDITED BY MARTIN ALLEN, PHILIP DE JERSEY AND IAN LEINS

THE Coin Register provides a platform for the publication of unusual and remarkable single coin finds from Britain and Ireland. All Celtic, pre-conquest Roman, Roman silver prior to AD 64, Roman gold and late Roman silver coins from the fourth century onwards are welcomed, as are Anglo-Saxon, Norman or Plantagenet coins and their continental contemporaries (down to and including the *Cross-and-Crosslets (Tealby)* type of Henry II), and most later medieval continental coins. However, coins outside these categories will still be considered for their numismatic interest. As always, the essential criterion for inclusion will be that the coin is new, by virtue of either being newly found or (if previously discovered) being hitherto unpublished. Single finds from archaeological excavations may be included if it seems that there would otherwise be a considerable delay in publication.

The listing of Celtic coins in the Coin Register is carried out in association with the Celtic Coin Index at the Institute of Archaeology, Oxford (<http://web.arch.ox.ac.uk/coins/ccindex.htm>). Celtic material should therefore be sent in the first instance to Dr Philip de Jersey, Institute of Archaeology, 36 Beaumont Street, Oxford OX1 2PG (philip.dejersey@arch.ox.ac.uk). Finds of Greek and Roman coins should be notified to Ian Leins, Finds Adviser, Iron Age and Roman coins, Portable Antiquities Scheme, c/o Department of Coins and Medals, British Museum, London WC1B 3DG (ileins@thebritishmuseum.ac.uk). Other material should be sent to Dr Martin Allen, Department of Coins and Medals, Fitzwilliam Museum, Cambridge CB2 1RB (mra25@cam.ac.uk).

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Abbreviations

- | | |
|-------|--|
| CCI | Celtic Coin Index |
| cuir. | cuirassed |
| diad. | diademed |
| dr. | draped |
| EMC | Corpus of Early Medieval Coin Finds AD 410–1180 (www.fitzmuseum.cam.ac.uk/coins/emc) |
| ex. | exergue |
| helm. | helmeted |
| HER | Historic Environments Record |
| l. | left |
| laur. | laureate |
| M/d | Metal detector |
| PAS | Portable Antiquities Scheme |
| r. | right |
| rad. | radiate |
| SMR | Sites and Monuments Record |
| std | seated |
| stg | standing |

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 Winwick, Cambridgeshire, 221
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 Wrinstone, Vale of Glamorgan, 308
 Wrotham, Kent, 160
 Wymondham, Norfolk, 235
 Yarburgh, near, Lincolnshire, 205
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Ancient Greek and Celtic Coins

Note: As in previous years, large numbers of Celtic coins were again reported during 2005. The list that follows is therefore selective, concentrating on the publication and discussion of rare and new types.

1. Carthage, bronze unit, *Corpus Nummorum Siculorum* III, series 21 Rs 74.

Weight not recorded.

Ludborough, near, Lincolnshire. M/d find.

Bronze coins of Carthage are now quite well-represented among assemblages of metal detector finds from Kent, but they remain rare further north. One other example of this series (though without the palm tree on the reverse) has been recorded in recent years, from Kent, but most British finds appear to be the smaller module series 20. Iron Age coins have apparently been found on the same site as this coin.

(CC105.0067)

J.S./P.de J.

2. Belgic Gaul, 'Aulerci Ebuovices', half-stater, cf. LT 7017–7020.

Weight not recorded.

Farnham, near, Surrey. M/d find.

The first reported discovery of a gold half-stater of the Aulerci Ebuovices in Britain. The type belongs to Scheers class IC ('Les monnaies au visage tatoué et au loup'. *Acta Archaeologica Lovaniensia* 19 (1980)), although the obverse is slightly simpler than most of the examples she illustrates. This coin was initially recorded from eBay with rather inadequate information, and it may possibly be a

plated example; its exact findspot is believed to have been in north-east Hampshire, close to the Surrey border.
(CCI 05.0607) P.de J.

3. Gallo-Belgic, stater, class C variant (Sills Cf class 2).
Weight: 6.33 g.
Shalfleet, Isle of Wight. M/d find.

Sills (2003, 261–7) has identified this type as an early insular derivative of the Gallo-Belgic C series. This is the sixth recorded example of his class 2 (*ibid.*, 491). The provenance supports Sills's suggestion of an origin in the Hampshire or West Sussex area.
(CCI 05.0753) F.B./P.de J.

4. Gallo-Belgic, quarter stater, Scheers series 14, Sills Cd class 2.
Weight: 1.7 g.
Scarrington, Nottinghamshire. M/d find.

Sills (2003, 253–56) records nine findspots for this type, widely scattered across Belgic Gaul and Britain. This coin, and another found during 2005 in Cambridgeshire, extend their range still further.
(CCI 05.0812) P.de J./M.R.L.

5. 'Cantii', cast bronze unit, 'Thurrock' type, VA 1402ff., *BMCIA* 660.
Weight: 2.48 g.
Burgh on Bain, near. Lincolnshire. M/d find.

Thurrock potins have been found across most of the coin-using areas of Iron Age Britain, but are still relatively rare as far north as Lincolnshire.
(CCI 05.0210) P.de J./J.S.

6. 'Cantii', cast bronze unit, Allen class I GA, VA 122.
Weight: 1.26 g.
Deal, near. Kent. M/d find.

One of the rarer varieties of the class I potin, distinguished by the three pellets in triangular formation at the centre of the obverse. Two examples were recorded in the Quex Park (Birchington, Kent) hoard of 1853, and a further three were in the collections of Leeds University (1) and Commander Mack (2) in the 1960s. No other examples have been noted since.
(CCI 05.0011) P.de J./C.R.

7. 'Cantii', silver unit, new type.
Obv. Head l. with multiple S-shaped curls, prominent stick-lips, wreath motif at neck.
Rev. Horse l. with long ears and plain mane, many small pellets and pellet-bosses around.
Weight: 0.98 g.
Folkestone, Kent. M/d find.

The fourth recorded example of this type; two previous specimens have been published in the *Coin Register* (1992, no. 193; 1996, no. 11). There are relatively few stylistic parallels to other Kentish issues, although note the resemblance of the head on the obverse to the following coin.
(CCI 05.0085) P.de J./C.R.

8. 'Cantii', silver unit, new type.
Obv. Head l., serpent's (?) head in front.
Rev. Horse l., small charioteer squatting on its back holding whip; head of small animal (serpent?) below, similar to that on obverse.
Weight: 0.9 g.
Goodnestone, Kent. M/d find.

A problematic type. Scheers series 105 is almost identical, but in bronze, attributed to the Ambiani. The bronze is unknown from Britain, and the silver unknown in Belgic Gaul, so it appears that this may be a Kentish silver copy of a Belgic bronze. Further details of the type are discussed in P. de Jersey, 'Belgic coins in Britain', in P. de Jersey (ed.), *Celtic coinage: new discoveries, new discussion* (forthcoming).
(CCI 05.0817) D.J.H./P.de J.

9. South Thames, quarter stater, VA 65, *BMCIA* 576.
Weight: 1.20 g.
Lewes, East Sussex. M/d find.

Derek Allen (*The Origins of Coinage in Britain: A Reappraisal* (1960), 159) placed this type – at that time known only by a specimen found east of Brighton, which is now *BMCIA* 576 – with Gallo-Belgic D, because 'the reverse seems to belong to this class, but obverse is a corrupt Apollo-pattern'. In fact the reverse perhaps owes a little to the Kentish trophy types, which would accord well with an origin along the east Sussex coast, as suggested by this provenance. There do not appear to be any examples recorded from Belgic Gaul, and the only other specimen is unprovenanced, though almost certainly a British find.
(CCI 05.0657) P.de J./C.R.

10. South Thames, quarter stater, new type.
Obv. Stylized wreath across flan, crossed by spike with two pellet bosses and a cogwheel at the top; stylized lock of hair and associated rings and pellets either side of the spike.
Rev. Horse r., pellet on chest and rump, large sunburst above.
Weight not recorded.
Crawley, Hampshire. M/d find.

An unprovenanced example of this type was sold by Chris Rudd in 2000 (list 54, no. 36). The basic type sits quite securely within the large South Thames series of quarter staters; in terms of detail, the horse and the sunburst most closely resemble *BMCIA* 367.
(CCI 05.0209) P.de J./C.R.

11. South Thames, silver unit, new type.
Obv. Central boss surrounded by ring of pellets and multiple crescents, to give appearance of flower.
Rev. Horse l., scissor-shaped head; beaded tail, a curved beaded line present behind the left front leg; ringed pellet surrounded by ring of pellets above, other small rings in the field.
Weight not recorded.
Chichester, near. West Sussex. M/d find.

The style of the horse is very close indeed to silver units in the so-called Danebury series, but here coupled with a previously unrecorded obverse. Although there are some slightly similar obverses in the series, they tend to occur primarily on half-units rather than full units.
(CCI 05.0820) P.de J./C.R.

12. South Thames, bronze unit of Eppillus, new type.
Obv. Four crescents and four ringed pellets alternating around central flower.
Rev. Lion leaping r., EPPI above, COM F below; triangles of pellets below and in front of lion.
Weight: 1.1 g.
Acol, Kent. M/d find.

An unprovenanced example in the Finney Collection was published by D. Symons (*NCirc* March 1990, 50

no. 52). In 1997 a second specimen was recorded from Dover, and this third coin adds further support to the type being a Kentish issue of Eppillus.

(CCI 05.0816)

D.J.H./P.de J.

13. North Thames, stater of Addedomaros, VA 1635, *BMCIA* 2405.

Rev. [AD]DEDOMAROS

Weight not recorded.

Luton, near, Bedfordshire. M/d find.

From the same dies as the coin ex Strauss (Sotheby, 26 May 1994, lot 36). The treatment of the reverse – with a thin line encircling the horse, around which lies the inscription – appears to be unique to this die.

(CCI 05.0075)

P.de J.

14. North Thames, bronze unit of Addedomaros, new type.

Obv. Boar r., ringed pellets joined by line above.

Rev. Horse r., prominent ears, two sets of ringed pellets joined by line above, other ringed pellets around; [A]DD[IO]MAROS around.

Weight: 1.45 g.

Little Thurlow, Suffolk. M/d find.

The type was first recorded in the form of a very poor specimen from the excavations at Holbrooks, Harlow, in the early 1970s. The Mossop sale (Glendining, 6 Nov. 1991, lot 346/5) included a better example with the final two letters of the inscription visible, but it was only with the appearance of a coin sold in 2003 (Chris Rudd 2003 list 67, no. 65), with the letters ADD visible beneath the horse, that the attribution to Addedomaros could finally be confirmed. The style of the horse is virtually identical to other issues of this ruler (notably the quarter stater, VA 1638), and may possibly indicate the same die-engraver at work.

(CCI 05.0192)

P.R.S./C.A.M.

15. North Thames, silver unit of Tasciovanos, new type.

Obv. TASC in central panel on vertical wreath.

Rev. Stag l., head turned back, VIR in front, ringed pellet above and below.

Weight not recorded.

Duxford, near, Cambridgeshire. M/d find.

Now a relatively well-known type although still omitted from the major catalogues. The panel on the obverse suggests that this silver unit may have been issued at approximately the same time as the 'RIGON' staters and quarter staters (VA 1780, 1786).

(CCI 05.0265)

P.de J.

16. North Thames, stater of Cunobelin, biga series, VA 1910, *BMCIA* 1769.

Obv. CAMVL

Rev. [CVNOBE]LIN

Weight: 5.6 g.

Chelmsford, near, Essex. M/d find.

The second recorded example of dies D6 (see P. de Jersey and N. Wickenden, *BNJ* 74 (2004), 175–8). The obverse is unusual in that it lacks the heart-shaped motif normally found above and to the right of the inscription, which is replaced here by a bucranium.

(CCI 05.0815)

D.J.H./P.de J.

17. North Thames, silver unit of Cunobelin, *BMCIA* 1898.

Obv. CVNO

Rev. CVN

Weight: 1.4 g.

Ramsgate, Kent. M/d find.

All securely provenanced examples of the type have been found in Kent, suggesting that this coinage was issued specifically for use there. See also the following coin.

(CCI 05.0819)

D.J.H./P.de J.

18. North Thames, silver unit of Cunobelin, VA 2067, *BMCIA* 1891.

Obv. CVII

Rev. CVN

Weight: 1.3 g.

Mersham, Kent. M/d find.

As with the preceding coin, apparently an issue specifically produced for use in Kent. This example is struck on an unusually large flan; both dies are previously unrecorded. The obverse has no downstroke between the two vertical bars for the N.

(CCI 05.0818)

D.J.H./P.de J.

19. 'Dobunni', uninscribed quarter stater, VA 1010–3, *BMCIA* 2942.

Weight: 1.22 g.

Naunton Beauchamp, Hereford and Worcestershire. M/d find by Dean Crawford.

(CCI 05.0008)

P.de J.

20. 'Dobunni', uninscribed silver unit, class B, VA 1042, *BMCIA* 2953.

Weight not recorded.

Leonard Stanley, Gloucestershire. M/d find by Mr C. Chandler.

(CCI 05.0074)

P.de J.

21. 'Iceni', uninscribed quarter stater, *BMCIA* 3435.

Weight: 1.1 g.

Thetford, near, Norfolk. M/d find.

(CCI 05.0748)

P.de J.

22. 'Iceni', uninscribed quarter stater, new type.

Obv. Stylized wreath with ringed pellet at centre, beaded 'leaf' to each side, each containing ring; uncertain decoration, possibly ringed pellets, in quarters.

Rev. Horse l., pelleted bristles for mane, large open-mouthed head, bifurcated upper front leg; ringed pellet above, ring and two small pellets – possibly a stylized lyre – below.

Weight not recorded.

Beccles, near, Suffolk. M/d find.

The obverse is related to the preceding coin, the more ornate variety of the Snettisham quarter staters. From the same pair of dies as the only other recorded example, published in *Coin Register* 2003 (*BNJ* 74, 2004), no. 21.

(CCI 05.0072)

P.de J.

23. 'Corieltauvi', stater of 'Vep', VA 905, *BMCIA* 3274.

Rev. VEP

Weight: 5.44 g.

Grimsby, near, Lincolnshire. M/d find.

(CCI 05.0099)

C.R.

24. 'Corieltauvi', stater of Volisios Dumnocoveros, VA 978, *BMCIA* 3330.

Obv. VOLISIOS

Rev. DVMNOCOVER[OS]

Weight not recorded.

Pontefract, near, West Yorkshire. M/d find.

(CCI 05.0563)

P.de J.

Note: Most of the Roman and Byzantine coins published here have been recorded by the Portable Antiquities Scheme (PAS), or are the result of research carried out by Dr Roger Bland, Head of Portable Antiquities. They represent a sample of the Roman coins recorded by the PAS during 2004–5. See www.finds.org.uk for full details.

25. Roman Republic, denarius, *RIC* 236, 137 BC
Obv. [TAMPIL X], helm. head of Roma l.
Rev. ROM[A] M BAEBI [Q F], Quadriga r.
Weight: 2.99 g.
Nottinghamshire, M/d find, by 2005.
(PAS DENO-C9ECC7) R.A./R.B./I.M.R.L.

26. Augustus (27 BC–AD 14), dupondius or as, *RIC* I Augustus 342, 17 BC
Obv. AVGVSTVS / TRIBUNIC / POTES in wreath.
Rev. M SANQVINIVS Q F III VIR AAAFF around large S C
Weight: 9.34 g; diameter 27 mm (image not to scale)
Taunton, near, Somerset. Found during building work in the 1930s or 1940s.

Roman bronze coins dating to the pre-Claudian period are very unusual as British finds.
(PAS SOMDOR-C6ED32) N.P./I.M.R.L.

27. Augustus (27 BC–AD 14), denarius, *RIC* I Augustus 207, 2 BC–AD 14
Obv. CAESAR AVGVSTVS DIVI [F PATER PATRIAE], laur. head r.
Rev. [CL] CAESARES AVGVSTI F COS] DESIG PRINC IVVENT, Gaius and Lucius Caesar stg.
Weight: 3.48 g.
Meesden, near, Hertfordshire, M/d find, by 2005.
(PAS ESS-7004E6) C.A.M./I.M.R.L.

28. Augustus (27 BC–AD 14), denarius, *RIC* I Augustus 207, 2 BC–AD 14
Obv. [CAESAR AVGVSTVS] DIVI F PATER PATRIAE], laur. head r.
Rev. [CL] CAESARES AVGVSTI F COS DESI[G PRINC IVVENT], Gaius and Lucius Caesar stg.
Weight: 3.70 g.
Suffolk, M/d find, 2004.
(PAS SF-A05047) J.PI./I.M.R.L.

29. Tiberius (AD 14–37), denarius, plated copy, as *RIC* I Tiberius 30, after AD 14
Obv. TI CAESAR [DIVI AVG F AVGVSTVS], laur. head r.
Rev. [PONTIF] M[AXIM], Pax std r.
Weight: 1.93 g.
Lanivet parish, Cornwall, M/d find, by 2005 (acquired by the Royal Cornwall Museum).
(PAS CORN-19D792) A.T./I.M.R.L.

30. Gaius (AD 37–41), dupondius, *RIC* I Gaius 42, AD 39–40
Obv. [NERO ET] DRVSVS CAESARES, Nero and Drusus riding r.
Rev. C CAESAR AVG GERMANICVS PON M TR POT around large S C
Weight: 12.29 g.
Fingringhoe, near, Essex, M/d find, by 2005.
This coin is an extremely unusual find for a British site, especially given its condition.
(PAS ESS-8B8D77) C.A.M./I.M.R.L.

31. Trajan (AD 98–117), aureus, *RIC* 137, Rome, AD 103–11
Obv. IMP TRAIANO AVG GER DAC P M TR P, laur., dr. and cuir. bust r.
Rev. COS V P P SPQR OPTIMO PRINCIPI, Trajan in quadriga l.
Weight: 6.81 g.
Great Moulton, Norfolk, M/d find, 2005.
A.B.M./I.M.R.L.

32. Julian (AD 355–63), siliqua, *RIC* VIII Lyons 227, AD 360–3
Obv. FL CL IVLIANVS P P AVG, diad., dr. and cuir. bust r.
Rev. VOTIS / V / MVLTIS / X in wreath, PLVG in ex.
Weight: 1.91 g.
Burgh Castle, near, Norfolk, M/d find, December 2005.
(PAS BH-246617) J.W./I.M.R.L.

33. Julian (AD 355–63), siliqua, *RIC* VIII Arles 309, AD 360–3
Obv. D N FL CL IVLIANVS P F AVG, diad., dr. and cuir. bearded bust r.
Rev. VOT / X / MVLT / XX in wreath, [P?]CONST in ex.
Weight: 1.90 g.
Driffeld, near, East Yorkshire, M/d find, 2005.
The surface of the coin appears to have been damaged, possibly during the striking process.
(PAS YORYM-96CE04) S.H./I.M.R.L.

34. Theodosius (AD 379–95), siliqua, *RIC* IX Trier 55a/83a, AD 378–88
Obv. D N THEODO[SIVS] P F AVG, diad., dr. and cuir. bust r.
Rev. CONCORDIA AVGGG, TRPS in ex., Constantinopolis std facing.
Weight: 1.89 g.
Offton parish, Suffolk, M/d find, 2005.
(PAS SF-9BF205) J.PI./I.M.R.L.

35. Valentinian II (AD 375–92), solidus, *RIC* IX Constantinople 67(b), AD 383–8
Obv. D N VALENTINIANVS P F AVG, diad., dr. and cuir. bust r.
Rev. CONCORDIA AVGGG ε; CONOB, Constantinopolis std facing.
Weight not recorded.
East Sussex, M/d find, 2005 (not illustrated). Published in *The Searcher*, December 2005, 12.
R.B./I.M.R.L.

36. Magnus Maximus (AD 383–8), solidus, *RIC* IX Trier 77(b), AD 383–8
Obv. D N MAG MAXIMVS P F AVG, diad., dr. and cuir. bust r.
Rev. VICTORIA AVGG, TROB in ex., two emperors std facing.
Weight: 4.51 g.
Hibaldstow, near, North Lincolnshire, M/d find, 2004.
(PAS NLM-598885) L.S./I.M.R.L.

37. Valentinian II (AD 375–92), solidus, *RIC* IX Trier 90(a), AD 388–92
Obv. D N VALENTINIANVS P F AVG, diad., dr. and cuir. bust r.
Rev. VICTORIA AVGG, T R in field, COM in ex., two emperors std facing.
Weight not recorded.

Tollerton, near, North Yorkshire. M/d find, 2004 (not illustrated). Published in *The Searcher*, January 2005, 11.
R.B./I.M.R.L.

38. Valentinian II (AD 375–92), solidus, *RIC* IX Trier 90(a), AD 388–92
Obv. D N VALENTINIANVS P F AVG, diad., dr. and cuir. bust r.
Rev. VICTORIA AVGG, T R in field, COM in ex., two emperors std facing.

Weight: 4.46 g.
Braintree, near, Essex. Found during building work, by 2005
(PAS ESS-2ED1F5) C.A.M./I.M.R.L.

39. Honorius (AD 393–423), solidus, *RIC* IX Milan 35(c) / X 1206, AD 394–402

Obv. D N HONORIVS P F AVG, diad., dr. and cuir. bust r.
Rev. VICTORIA AVGGG, M D in field, CONOB in ex., Victory stg facing r.

Weight not recorded.
Stubbington, near, Hampshire. M/d find, 2005.
(PAS HAMP-F927E7) R.W./I.M.R.L.

40. Honorius (AD 393–423), solidus, *RIC* IX Milan 35(c) / X 1206, AD 394–402

Obv. D N HONORIVS P F AVG, diad., dr. and cuir. bust r.
Rev. VICTORIA AVGGG, M D in field, CONOB in ex., Victory stg facing r.

Weight not recorded.
Well, North Yorkshire. M/d find, August 2005 (not illustrated).
R.B./I.M.R.L.

41. Anastasius (AD 491–518), solidus, *MIBE* Constantinople 3(a)

Obv. D N ANASTASIVS PERP AVG, helm., diad. and cuir. bust facing, holding spear over r. shoulder and shield on l. shoulder.
Rev. VICTORIA AVCCCI, * in field r., CONOB in ex., Victory standing l., holding long cross.

Weight not recorded.
East Sussex. M/d find, 2005 (not illustrated). Published in *The Searcher*, February 2006, 13.
R.B./I.M.R.L.

Merovingian Coins

42. Gold solidus, temp. Sigebert III (639–56), Marseille, cf. Belfort 2528–30, 2532.

Obv. MASILIA (As unbarred), diad. and dr. bust r.
Rev. SEGOB | IRIVE, cross on base and globule, MA in field.

Weight not recorded (traces of mount).
Kent. M/d find, c.2000.

Formerly looped as an ornament; gold band soldered to reverse. The style is that of Sigebert III, but the reverse, which would normally carry the name of the king (SEGIBV ERTVS RIX or similar) is partly blundered on this coin.
(PAS KENT-22CA70; A.R./M.R.A./M.A.S.B. EMC 2005.0212)

43. Merovingian copy of Ostrogothic gold tremissis of Theoderic (493–526), in the name of Anastasius (491–518), cf. *MEC* I.351–4.

Obv. DN ANISTASIVS PP AVG, diad. and cuir. bust r.
Rev. VICTORIA AVGVSTORI, in ex. COMOB, standing Victory r., holding cross.

Weight: 1.45 g.
Norfolk. M/d find, by 2005.
(EMC 2005.0104) B.H./M.R.A.

44. Copper-alloy gilt imitation of gold tremissis, mid 6th cent.

Obv. Inscription, helm. and cuir. bust l., cross before face.
Rev. Inscription, Victory facing.

Weight: 0.81 g.
Kent. M/d find, by 2005.
(EMC 2005.0174) B.H./M.R.A.

45. Gold tremissis. Cologne, cf. Belfort 1602, Prou 1169.

Obv. Inscription, bust r.
Rev. Victory l. holding cross.

Weight: 1.06 g.
Stapleford, near, Cambridgeshire. M/d find, 17 September 2005. Found by Stephen Fordham.

This coin, which may be dated to c.590, belongs to a series of coins from this obverse die, mostly ex Escharen hoard, with a gold content between 87 and 99 per cent. It shows the obverse die in its most worn and damaged state.
(EMC 2005.0230) A.Pol

46. Gold tremissis, unidentified mint ('Brivaro'), Limoges region, moneyer ... mulfus.

Obv. +BRIVACOF, diad. bust r.
Rev. +[JAMVLFO MONE (retrograde); LEMO (retrograde) in four quarters of cross.

Weight: 1.18 g.
Kent. M/d find, 2005.
(EMC 2005.0152) B.H./M.R.A.

47. Gold tremissis, 'Wico in Pontio' (Quentovic), Daculfus.

Obv. IN HVIC PONTIO (HV ligated, Ns reversed), diad. bust r.
Rev. +DACVLVSMNT (\$ on its side).

Weight not recorded.
Barham, Suffolk. M/d find, by 2005.
Same dies as Prou 1120–1 and EMC 1970.2127, found West Hythe, Kent.

(EMC 2005.0102) A.A./A.Pol

48. Gold tremissis, unlocalized mint *Stade*, Wulchramno.

Obv. +STADVNSEPI (first S on its side), diad bust r.
Rev. +VVLCHRAMNO MO, C A (retrograde) in two angles of cross.

Weight not recorded.
Collingham, Nottinghamshire. M/d find, 7 August 2005.
Found by Colin Hedley.

This mint and moneyer are not in A.M. Stahl (*The Merovingian coinage of the region of Metz*, Louvain-la-Neuve, 1982), but the type belongs to the CA group so common in the region of Metz. The place name *Stade*, which means 'bank (of a river)', is unspecific and can be found at several places in the region (pers. comm. Prof. Martina Pitz); the comparable moneyers' names VVALECHRAMNV and VVALECHRAMNO occur at the mints of Vic-sur-Seille and Moyenvic.

(EMC 2005.0189) M.R.A./A.Pol

49. Gold tremissis, Frisian. Dronrijp type, series VI.

Obv. Inscription, diad. bust l.
Rev. Inscription, cross on globe, two letters in field.

Weight: 1.24 g. Die axis 180°.
Essex/Hertfordshire border. M/d find, February 2005.

Specific gravity 15.75 (c.72% gold). The three other known specimens of series VI (found in Friesland) show a gold content of 80–82%; all four coins are from the same dies.
(EMC 2005.0041) C.A.M./A.Pol

50. Silver denier, Rouen?

Obv. +VIC[]O, semi-circular arc intersecting horizontal line.

Rev. +L:CIV[], rose of eight petals.

Weight: 1.10 g.

Eyke, Suffolk. M/d find, by 2005.

(EMC 2005.0106)

B.H./M.R.A.

51. Silver denier.

Obv. Bust r.

Rev. Monogram.

Weight: 0.85 g.

North Essex. M/d find, by 2005.

(EMC 2005.0150)

B.H./M.R.A.

Anglo-Saxon Shillings

52. Shilling ('thrymsa'), Two Emperors type, Sutherland II.v, North 20.

Obv. Pseudo-inscription, diad. bust r.

Rev. Stylized figure of Victory with wings enfolding two facing busts.

Weight: 1.29 g.

Aston Abbots, Buckinghamshire. M/d find, 10 July 2005. Found by David Tombs.

(PAS BUC-A32A07; EMC 2005.0213)

R.T./J.R.B.

53. Shilling ('thrymsa'), Two Emperors type, Sutherland II.v, North 20.

Obv. Pseudo-inscription, diad. and dr. bust r.

Rev. Stylized figure of Victory with wings enfolding two facing busts.

Weight not recorded (cut fragment).

Foxley, Norfolk. M/d find, 2005.

(EMC 2005.0228)

A.Pol

54. Shilling ('thrymsa'), Series Pa III, North 31, Pada.

Obv. Pseudo-inscription, diad. and dr. bust r.

Rev. Pada (runic), ANVSPFAVNOI, small cross on cross saltire with each limb of saltire terminating in an annulet.

Weight not recorded (pierced and plugged).

Eythorne, near Kent. M/d find, by 2005.

(EMC 2005.0160)

A.A.

Pennies ('Sceattas'): Primary and Intermediate

55. Penny ('sceat'), Series A1 (Type 2a), North 40.

Obv. [O]TIC, diad. and rad. bust r., OVO behind head.

Rev. TOTII in standard.

Weight: 1.16 g.

Cambridgeshire. M/d find, by 2005.

(EMC 2005.0127)

B.H./M.R.A.

56. Penny ('sceat'), Series A2 (Type 2a), North 40.

Obv. [O]TIC, diad. and rad. bust r., OVO behind head.

Rev. TOTII in standard.

Weight: 1.04 g.

Kent. M/d find, by 2005.

(EMC 2005.0067)

B.H./M.R.A.

57. Penny ('sceat'), Series A3 (Type 2a), North 40.

Obv. [O]TIC, diad. and rad. bust r., OVO behind head.

Rev. TOTII in standard.

Weight: 1.17 g.

Layer Marney, Essex. M/d find, 2005. Found by Steve Wilkins.

(PAS ESS-16E342; EMC 2006.0021)

C.A.M./J.R.B.

58. Penny ('sceat'), Series BIa (Type 27b), North 126.

Obv. Diad. bust r.

Rev. Bird on cross with three annulets in field.

Weight: 1.1 g.

Great Bromley, Essex. M/d find, 22 September 2005.

(EMC 2005.0208)

C.M./M.R.A.

59. Penny ('sceat'), Series BIa (Type 27b) North 126.

Obv. 000T[], diad. bust r.

Rev. Bird on cross with two annulets in field.

Weight: 1.09 g.

Hilgay, Norfolk. M/d find, 2005. Found by Chris Miles.

(PAS Norfolk SF-1FDF97; EMC 2005.0191) F.M./J.R.B.

60. Penny ('sceat'), Series BIb (Type 27b) North 126.

Obv. Diad. bust r.

Rev. 000VSA[] (S on its side, A unbarred), bird on cross with two annulets and two pellets in field.

Weight: 1.04 g. Die axis: 90°.

Sible Hedingham, Essex. M/d find, 14 February 2005. Found by Paul James.

(PAS ESS-493535; EMC 2005.0038)

J.R.B.

61. Penny ('sceat'), imitation of Series BI, North 127.

Obv. Diad. bust r.

Rev. []SV (S on its side), bird on cross with two annulets in field.

Weight: 1.17 g.

Cliffe, Medway. M/d find, by 2005.

An imitative variant of Rigold Series BI with a trefoil of pellets to the right of the bird.

(EMC 2005.0070)

B.H./M.R.A.

62. Penny ('sceat'), imitation of Series BI, North 127.

Obv. Rad. bust r.

Rev. []SOV[] (S on its side), bird on cross with two annulets in field.

Weight: 1.24 g.

Sherburn, Scarborough. M/d find, by 2005.

(EMC 2005.0205)

B.H./M.R.A.

63. Penny ('sceat'), Series BII var. (Type 27b), North 127.

Obv. 000AVMV[] (A unbarred), diad. bust r., cross before face.

Rev. VTTAVMVIV[], bird on cross with three annulets in field.

Weight: 1.25 g.

Freckenham, Suffolk. M/d find, by 2005. Found by Mick King.

As Rigold B II, 2, but with a pellet in three quarters of the cross on the reverse.

(PAS SF-A02090; EMC 2005.0043)

F.M./J.R.B.

64. Penny ('sceat'), Series C, Metcalf C2, North 41.

Obv. Rad. bust r., *epa* (runic) before face.

Rev. TOTII in standard.

Weight not recorded.

Cliffe, Medway. M/d find, by April 2005. Found by A. Crampton.

(PAS KENT-4B8EB8; EMC 2006.0029)

J.R.B.

65. Penny ('sceat'), Series C, Metcalf R1.

Obv. Rad. bust r., *epa* (runic) before face.

Rev. TOTII in standard, pseudo-inscription around.

Weight: 1.06 g.

Lashley Green, Essex. M/d find, by 2005.

(EMC 2005.0071)

B.H./M.R.A.

66. Penny ('sceat'), Series C, Metcalf R2, Blackburn D.
Obv. Rad. bust r., T *epa* (runic) before face.
Rev. TOTII in standard, pseudo-inscription around.
 Weight: 1.2 g.
 Malton, near, North Yorkshire. M/d find, September 2005.
 (EMC 2005.0252) A.A.
67. Penny ('sceat'), Series D (Type 2c), North 163/168.
Obv. Rad. bust r., pseudo-runic inscription before face.
Rev. Pseudo-inscription, cross pommée with pellets in angles.
 Weight: 1.13 g.
 Lashley Wood, Essex. M/d find, by 2005 (not illustrated).
 (EMC 2005.0098) B.H./M.R.A.
68. Penny ('sceat'), Series D (Type 2c), North 163/168.
Obv. Rad. bust r., pseudo-runic inscription before face.
Rev. Pseudo-inscription, cross pommée with pellets in angles.
 Weight: 1.2 g.
 Newark, Nottinghamshire. M/d find, October 2005.
 Found by Richard Northey.
 (EMC 2005.0240) M.R.A.
69. Penny ('sceat'), Series D (Type 2c), North 163/168.
Obv. Rad. bust r., pseudo-runic inscription before face.
Rev. Pseudo-inscription, cross pommée with pellets in angles.
 Weight: 0.99 g.
 West Wrating, Cambridgeshire. M/d find, 2005. Found by Len Eeles.
 (PAS CAM-8B9D33; EMC 2006.0014) P.W./J.R.B.
70. Penny ('sceat'), Series D (Type 2c), North 169.
Obv. Rad. bust l., pseudo-runic inscription in field r.
Rev. Pseudo-inscription, cross pommée with pellets in angles.
 Weight: 1.08 g.
 Oxfordshire. M/d find, by 2005.
 (EMC 2005.0092) B.H./M.R.A.
71. Penny ('sceat'), Series D (Type 2c), North 169.
Obv. Rad. bust l., pseudo-runic inscription in field r.
Rev. Pseudo-inscription, cross pommée with pellets in angles.
 Weight: 1.1 g.
 Wingham, Kent. M/d find, September 2005.
 (EMC 2006.0158) D.J.H.
72. Penny ('sceat'), Series D (Type 2c) var., North -
Obv. Degenerate rad. bust.
Rev. Pseudo-inscription, cross pommée with pellets in angles.
 Weight: 1.0 g. Die axis 270°.
 Southend, near. M/d find, by 2005.
 The obverse has a crude copy of the radiate bust of Series D (Type 2c).
 (EMC 2005.0275) A.A.
73. Penny ('sceat'), Series D (Type 8), North 50.
Obv. Standard.
Rev. Pseudo-inscription, cross pommée with pellets in angles.
 Weight: 1.21 g.
 Lashley Wood, Essex. M/d find, by 2005.
 (EMC 2005.0095) B.H./M.R.A.
74. Penny ('sceat'), Series D (Type 8), North 50.
Obv. Standard.
75. Penny ('sceat'), Series D (Type 8), North 50.
Obv. Standard.
Rev. Pseudo-inscription, cross pommée with pellets in angles.
 Weight not recorded.
 Dorchester, near, Dorset. M/d find, 2005. Found by Gary Saunders.
 (EMC 2005.0251) M.R.A.
76. Penny ('sceat'), Series D (Type 8), North 50.
Obv. Standard.
Rev. Pseudo-inscription, cross pommée with pellets in angles.
 Weight not recorded.
 Hothfield, Kent. M/d find, November 2004. Found by John Coles.
 (PAS KENT-E2A682; EMC 2006.0036) A.R./J.R.B.
77. Penny ('sceat'), Series D/E 'mule' (Type 10), North 162.
Obv. Rad. bust l., pseudo-runic inscription in field r.
Rev. Porcupine, with 'moon-like' face.
 Weight: 1.0 g. Die axis 180°.
 Essex. M/d find, by 2005.
 (EMC 2005.0261) A.A.
78. Penny ('sceat'), Series E, VICO var. 1 (Type 4).
Obv. Porcupine.
Rev. VICO in standard.
 Weight: 0.98 g.
 Chelmondiston, Suffolk. M/d find, March 2005. Found by R. Pooley.
 (PAS SF-8E1AD2; EMC 2005.0154) F.M./J.R.B.
79. Penny ('sceat'), Series E, VICO var. 1 (Type 4).
Obv. Porcupine.
Rev. VICO in standard.
 Weight: 1.24 g.
 Lashley Wood, Essex. M/d find, by 2005.
 (EMC 2005.0097) B.H./M.R.A.
80. Penny ('sceat'), Series E, VICO var. 2 (Type 4).
Obv. Porcupine.
Rev. VICO in standard.
 Weight: 1.11 g.
 Littlebourne, Kent. M/d find, August 2005. Found by Chris Beaver.
 (PAS KENT-750E48; EMC 2006.0033) D.P./J.R.B.
81. Penny ('sceat'), Series E, variant of Plumed Bird var. L (Type 6), North 49.
Obv. 'Plumed bird' porcupine, bird l.
Rev. Standard with five annulets enclosing pellets.
 Weight: 1.1 g.
 Barham, Kent. M/d find, June 2002.
 (EMC 2005.0001) A.A.
82. Penny ('sceat'), Series E, Plumed Bird var. L (Type 6), North 49.
Obv. 'Plumed bird' porcupine.
Rev. Standard with five annulets enclosing pellets.
 Weight: 0.9 g.
 Spalding, near, Lincolnshire. M/d find, by 2005.
 (EMC 2005.0172) B.H./M.R.A.

83. Penny ('sceat'), Series E, variant of Plumed Bird var. J or K (Type 6), North 49.
Obv. 'Plumed bird' porcupine.
Rev. Standard, with two pellets either side of annulet in standard.
 Weight: 1.1 g.
 Thornbury, South Gloucestershire. M/d find, 2005. Found by Rev. Peter Twinn.
 (EMC 2005.0199) M.R.A.
84. Penny ('sceat'), Series E, var. D (Type 4), North 45.
Obv. Porcupine.
Rev. Standard.
 Weight: 1.2 g.
 Shipton on Cherwell and Thrupp, Oxfordshire. M/d find, c. July 2005. Found by Gerald Knight.
 (PAS BERK-2126B3; EMC 2006.0011) K.S./J.R.B.
85. Penny ('sceat'), Series E, var. G1 (Type 4), North 45.
Obv. Porcupine.
Rev. Standard.
 Weight: 0.96 g.
 Sudbourne, Suffolk. M/d find, 2005. Found by Alan Calver.
 (PAS: SUESF-3BP; EMC 2005.0234) J.R.B.
86. Penny ('sceat'), Series E, var. G3 (Type 4), North 45.
Obv. Porcupine.
Rev. Standard.
 Weight not recorded.
 Northallerton, near, North Yorkshire. M/d find, c.1990-5.
 Found by Peter Lawson.
 (EMC 2005.0002) M.R.A.
87. Penny ('sceat'), Series E, var. G3 (Type 4), North 45.
Obv. Porcupine.
Rev. Standard.
 Weight: 1.16 g.
 St Albans, near, Hertfordshire. M/d find, January 2005.
 Found by S. Brandon.
 (PAS BH-F9D876; EMC 2006.0013) J.W./J.R.B.
88. Penny ('sceat'), Series E, secondary variety.
Obv. Porcupine.
Rev. Standard.
 Weight not recorded.
 Lashley Wood, Essex. M/d find, by 2005.
 (EMC 2005.0096) B.H./M.R.A.
89. Penny ('sceat'), Series E, secondary variety.
Obv. Porcupine.
Rev. Standard.
 Weight: 1.08 g.
 Merton, Norfolk. M/d find, December 2004. Found by S. Driscoll.
 (EMC 2005.0117) A.B.M.
90. Penny ('sceat'), Series E, secondary variety.
Obv. Porcupine.
Rev. Standard.
 Weight: 1.1 g.
 Torksey, Lincolnshire. M/d find, by 2005.
 (EMC 2005.0158) A.A.
91. Penny ('sceat'), Series E, secondary variety.
Obv. Porcupine.
Rev. Standard.
 Weight: 1.01 g.
 South Lincolnshire productive site. M/d find, August 2005. Found by D. Willson.
 (EMC 2005.0236) M.R.A.
92. Penny ('sceat'), Series E, secondary variety.
Obv. Porcupine.
Rev. Standard.
 Weight: 1.07 g.
 Raunds, Northamptonshire. M/d find, 1 January 2004.
 Found by Stephen Newby.
 (PAS LANCUM-CBCAD6; EMC 2006.0038) D.B./J.R.B.
93. Penny ('sceat'), Series E, secondary variety.
Obv. Porcupine.
Rev. Standard.
 Weight: 1.09 g.
 Welbourn, Lincolnshire. M/d find, by 2005. Found by Ron Teather.
 (PAS LIN-1CB090; EMC 2006.0041) A.D./J.R.B.
94. Penny ('sceat'), Series E, var. G derivative with pseudo-inscription on reverse.
Obv. Porcupine.
Rev. Standard.
 Weight: 1.1 g. Die axis 180°.
 Aylesbury, Buckinghamshire. M/d find, by 2005.
 Abramson, *Sceattas*, p. 90, E650 (this coin).
 (EMC 2005.0253) A.A.
95. Penny ('sceat'), Series E, var. G derivative with pseudo-inscription on reverse.
Obv. Porcupine.
Rev. Standard.
 Weight: 1.1 g. Die axis 180°.
 Littlestoke, Oxfordshire. M/d find, September 2005.
 (EMC 2005.0270) A.A.
96. Penny ('sceat'), Series E, secondary variety.
Obv. Porcupine.
Rev. Standard.
 Weight: 0.9 g.
 Malton, near, North Yorkshire. M/d find, 28 March 2005.
 Abramson, *Sceattas*, p. 70, E205 (this coin).
 (EMC 2005.0271) A.A.
97. Penny ('sceat'), Series E, secondary variety with left-facing porcupine, North 46.
Obv. Porcupine l.
Rev. Standard.
 Weight: 1.22 g.
 Oxford. M/d find, by 2005.
 (EMC 2005.0090) B.H./M.R.A.
98. Penny ('sceat'), Series E, Stepped Cross (Type 53), North 150.
Obv. Porcupine.
Rev. 'Stepped' cross.
 Weight: 1.03 g.
 Milton Keynes area. M/d find, by 2005.
 (EMC 2005.0099) B.H./M.R.A.
99. Penny ('sceat'), Series F, Metcalf b.iii (Type 24b), North 62.
Obv. Pseudo-inscription, diad. bust r.
Rev. Pseudo-inscription, cross with four annulets, TT in two quarters of cross.
 Weight: 1.17 g.
 Lashley Green, Essex. M/d find, by 2005.
 (EMC 2005.0069) B.H./M.R.A.
100. Penny ('sceat'), Series G (Type 3a), North 43.
Obv. Diad. bust r., cross before face.
Rev. Standard with four crosses pommée and central annulet enclosing pellet.

- Weight: 0.91 g.
Horncastle, near, Lincolnshire. M/d find, by 2005.
(EMC 2005.0149) B.H./M.R.A.
101. Penny ('sceat'), Series G (Type 3a), North 43.
Obv. Diad. bust r., cross before face.
Rev. Standard with four crosses pommée and central annulet enclosing pellet.
Weight not recorded.
Chichester, near, West Sussex. M/d find, 2005.
(EMC 2005.0219) R.C./M.R.A.
102. Penny ('sceat'), Series G (Type 3a), North 43.
Obv. Diad. bust r., cross before face.
Rev. Standard with four crosses pommée and central annulet enclosing pellet.
Weight: 1.0 g.
Fimber, East Yorkshire. M/d find, by 2005.
(EMC 2005.0263) A.A.
103. Penny ('sceat'), Series W, var. 1B, North 148.
Obv. Standing figure, head r., holding two crosses.
Rev. Cross-crosslet on saltire.
Weight: 1.1 g.
Fakenham, near, Norfolk. M/d find, by 2005.
(EMC 2005.0262) A.A.
104. Penny ('sceat'), Series X, var. f (Type 31) North 116/117.
Obv. Facing 'Woden' head, two crosses pommée in field.
Rev. Beast l. with head turned back, biting tail.
Weight not recorded.
Norton, Northamptonshire. August 2005. Found by D. Derby.
(PAS NARC-26A4D2; EMC 2005.0210) T.B./J.R.B.
105. Penny ('sceat'), Vernus Group II.
Obv. Degraded bust r., with corrupted VERNVS legend.
Rev. TOTII in standard.
Weight: 1.2 g. Die axis 0°.
Freckenham, Suffolk. M/d find, by 2005.
(EMC 2005.0266) A.A.
106. Penny ('sceat'), derivative of 'Maastricht' Interlace type.
Obv. Bust l.
Rev. Interlaced quatrefoil.
Weight: 0.9 g.
Sutton Courtenay, Oxfordshire. M/d find, c. 2002.
Abramson, *Sceattas*, p. 70, Int 90 (this coin).
(EMC 2005.0280) A.A.
- Pennies ('Sceattas'): Secondary*
107. Penny ('sceat'), Series J (Type 36), North 134.
Obv. Diad. bust r. with cross before face.
Rev. Walking bird r. with smaller bird r. above.
Weight: 1.1 g.
Thetford, Norfolk. M/d find, November or December 2004.
(EMC 2005.0036) A.A.
108. Penny ('sceat'), Series J (Type 37), North 135.
Obv. Two facing diad. heads, separated by cross on stand.
Rev. Whorl of four birds around cross pommée.
Weight: 0.90 g.
Great Shelford, Cambridgeshire. M/d find, 28 April 2005.
Found by Stephen Fordham.
(EMC 2005.0231) M.R.A.
109. Penny ('sceat'), Series J (Type 72), North 141.
Obv. Two facing diad. heads, separated by cross on stand.
Rev. Walking bird r., head turned back, encircled by serpent-headed torc.
Weight: 1.03 g.
Horncastle, near, Lincolnshire. M/d find, by 2005.
(EMC 2005.0148) B.H./M.R.A.
110. Penny ('sceat'), Series K (Type 32a), North 86-91.
Obv. Bust r. with knotted diadem, holding cross before face.
Rev. Wolf-serpent curled clockwise.
Weight: 1.0 g. Die axis 0°.
Kingston upon Hull, near. M/d find, 2003.
(EMC 2005.0273) A.A.
111. Penny ('sceat'), Series K (Type 32a), North 86-91.
Obv. Bust r. with knotted diadem, holding cross before face.
Rev. Wolf-serpent curled anti-clockwise.
Weight not recorded.
Cliffe, Medway. M/d find, 2003. Found by Frank Butt.
(PAS KENT-8FA2C7; EMC 2006.0031) J.R.B.
112. Penny ('sceat'), Series K (Type 42), North 100.
Obv. Bust r. with knotted diadem, bird before face.
Rev. Hound l., tail curved over back, looking back at berried vine.
Weight: 0.9 g.
Hollingbourne, Kent. M/d find, August 2005.
(EMC 2006.0157) D.J.H.
113. Penny ('sceat'), Series K, variant of Type 42 with a geometric obverse.
Obv. Shield.
Rev. Hound l., tail curved over back, looking back at berried vine.
Weight: 0.9 g.
Edlesborough, near, Buckinghamshire. M/d find, 2005.
(EMC 2005.0272) A.A.
114. Penny ('sceat'), Series K/R 'mule'
Obv. Wolf-serpent curled anti-clockwise.
Rev. Standard.
Weight: 1.06 g.
Welbourne, near, Norfolk. M/d find, 2005.
Cf. Metcalf, *Thrymsas and Sceattas*, no. 357.
(Dix Noonan Webb, 12 Dec. 2005, R.A.A.
lot 334; EMC 2005.0291)
115. Penny ('sceat'), Series K/R 'mule'.
Obv. Wolf-serpent curled anti-clockwise.
Rev. Standard.
Weight: 0.64 g.
Buntingford, Hertfordshire. M/d find, by 2005.
Cf. Metcalf, *Thrymsas and Sceattas*, no. 357.
(EMC 2005.0133) B.H./M.R.A.
116. Penny ('sceat'), Series L (Type 18), North 72.
Obv. Diademed bust l., cross before face.
Rev. Standing figure in segment of a circle, holding cross and bird.
Weight: 0.74 g.
Foxton, Cambridgeshire. M/d find, 12 September 2005.
Found by Brett Hammond.
(EMC 2005.0204) B.H./M.R.A.
117. Penny ('sceat'), Series L (Type 18) North 72.
Obv. Diademed bust r., cross before face.
Rev. Standing figure in segment of a circle, holding cross and bird.

- Weight: 1.12 g.
Long Melford, Suffolk. M/d find, 2005. Found by Duncan Pangborn.
(PAS: SF-BF49A8; EMC 2005.0221) F.M./M.R.A.
118. Penny ('sceat'), Series L (Type 23e), North 85.
Obv. Standing figure with two crosses.
Rev. Whorl of three wolf-worms.
Weight: 0.9 g.
Cambridge, near. M/d find, by 2005.
(EMC 2005.0265) A.A.
119. Penny ('sceat'), Series L (Type 23e), North 85.
Obv. Standing figure holding two crosses.
Rev. Whorl of three wolf-worms.
Weight: 0.92 g.
Welbourn, Lincolnshire. M/d find, by 2005. Found by Ron Teather.
(PAS LIN-1C7DB2; EMC 2006.0040) J.R.B.
120. Penny ('sceat'), Series L.
Obv. Diad. bust r. with cross of pellets and two rosettes.
Rev. Standing figure holding two long crosses.
Weight: 1.1 g.
Barham, Suffolk. M/d find, by 2005.
(EMC 2005.0124) A.A.
121. Penny ('sceat'), Monita Scorum Group, North 80 var.
Obv. DE LVNDONIA, diad. bust r.
Rev. SCORVM (S reversed), porcupine l.
Weight: 0.88 g.
Tiptree, Essex. M/d find, 2005. Found by Corinne Mills.
From the same dies as Coin Register 2005, no. 128.
(PAS ESS-6C4717; EMC 2005.0289) C.A.M./M.R.A.
122. Penny ('sceat'), C ARIP Group (Type 63).
Obv. Diad. bust r., CAAN before bust, CI behind.
Rev. Porcupine l.
Weight: 1.07 g.
Newark, Nottinghamshire. M/d find, 22 October 2005.
Found by Richard Northey.
(EMC 2005.0239) M.R.A.
123. Penny ('sceat'), C ARIP Group (Type 63), cf. Metcalf, *Thrymsas and Sceattas*, pl. 20, 339.
Obv. Diad bust r., IAA before face.
Rev. Standing figure holding cross.
Weight: 1.0 g. Die axis 270°.
Bedfordshire/Buckinghamshire border. M/d find, by 2005.
(EMC 2005.0255) A.A.
124. Penny ('sceat'), Triquetras Group.
Obv. Facing bust.
Rev. Interlace.
Weight not recorded.
Lavendon, Buckinghamshire. M/d find, March 2005.
Found by Neil Smith.
(EMC 2005.0111) M.R.A.
125. Penny ('sceat'), Triquetras Group.
Obv. Facing bust.
Rev. Interlace.
Weight: 0.79 g.
Margaret Roding, Essex. M/d find, 1 May 2005. Found by G. Lee.
(PAS ESS-46B7F0; EMC 2006.0022) J.R.B.
126. Penny ('sceat'), 'Hen' type.
Obv. Bird r., looking back, pecking berries.
Rev. 'Hen' r. in vine.
Weight: 0.89 g.
Alton, near, Hampshire. M/d find, by 2005.
For a similar type with the 'hen' facing left see Abramson, *Sceattas*, p. 59, and Gannon, *Iconography*, p. 124, Fig. 4.22a.
(EMC 2005.0217) P.B./M.A.S.B.
127. Penny ('sceat'), Series N (Type 41b), North 99.
Obv. Two standing figures holding three long crosses.
Rev. Monster l. with headed turned back.
Weight: 1.1 g. Die axis 270°.
Lenwade, Norfolk. M/d find, by 2005.
(EMC 2005.0269) A.A.
128. Penny ('sceat'), Series N (Type 41b), North 99.
Obv. Two standing figures holding three long crosses.
Rev. Monster l. with headed turned back.
Weight: 0.85 g.
Congham, Norfolk. M/d find, 2005. Found by Adrian Reeve.
(EMC 2005.0198) A.B.M.
129. Penny ('sceat'), Series O (Type 38), North 95.
Obv. Bust r. within pellet and cable borders.
Rev. Bird r. within serpent-headed torque.
Weight: 0.93 g.
London (Thames). M/d find, 2005.
(Dix Noonan Webb, 12 Dec. 2005, lot 335; EMC 2005.0292) R.A.A.
130. Penny ('sceat'), Series O (Type 38), North 95.
Obv. Bust r. within pellet and cable borders.
Rev. Bird r. within serpent-headed torque.
Weight: 1.21 g.
Lydd, Kent. M/d find, by 2005.
(PAS KENT-930C34; EMC 2006.0034) D.P./J.R.B.
131. Penny ('sceat'), Series O (Type 40).
Obv. Standing figure holding two crosses.
Rev. Monster r. looking back.
Weight: 1.2 g.
Thurrock area. M/d find, Autumn 2004.
(EMC 2005.0033) A.A.
132. Penny ('sceat'), Monster/Interlace type (Type 43). North 118.
Obv. Monster r., looking back.
Rev. Interlaced quatrefoil.
Weight: 1.0 g.
Ravensden, Bedfordshire. M/d find, by 2005.
(EMC 2005.0126) A.A.
133. Penny ('sceat'), Series QIIa.
Obv. Monster l., looking back.
Rev. Bird r.
Weight: 1.0 g. Die axis 0°.
Harwell, Oxfordshire. M/d find, by 2005.
(EMC 2005.0267) A.A.
134. Penny ('sceat'), Series Q(R) (Type 73).
Obv. Bird r.
Rev. Standard.
Weight: 1.0 g.
King's Lynn, near, Norfolk. M/d find, by 2005.
(EMC 2005.0279) A.A.

135. Penny ('sceat'), Series Q/R derivative.
Obv. Diad. bust r., cross and pellets before face.
Rev. Standard.
 Weight: 1.04 g.
 Freckenham, Suffolk. M/d find, 2005. Found by Mick King.
 Cf Abramson, *Sceattas*, p. 70, QR20.
 (EMC 2005.0284) F.M.
136. Penny ('sceat'), Series R, Metcalf R3.
Obv. Radiate crowned bust r., *gepa* (runic) before face.
Rev. Standard.
 Weight: 1.13 g.
 Roughton, Norfolk. M/d find, April 2005. Found by M. Watts.
 (EMC 2005.0155) A.B.M.
137. Penny ('sceat'), Series R, Metcalf R5, Blackburn G.
Obv. Radiate crowned bust r., *epa* (runic) before face.
Rev. Standard.
 Weight: 0.8 g.
 King's Lynn, near, Norfolk. M/d find, by 2005.
 (EMC 2005.0268) A.A.
138. Penny ('sceat'), Series R, Metcalf R5, Blackburn G.
Obv. Radiate crowned bust r., *epa* (runic) before face.
Rev. Standard.
 Weight: 0.92 g.
 Freckenham, Suffolk. M/d find, 2005. Found by Mick King.
 (EMC 2005.0283) F.M.
139. Penny ('sceat'), Series R, Metcalf R8, Blackburn I.
Obv. Rad. bust r., runic inscription before face.
Rev. Standard.
 Weight: 0.89 g.
 Spalding, near, Lincolnshire. M/d find, by 2005.
 (EMC 2005.0173) B.H./M.R.A.
140. Penny ('sceat'), Series R, Metcalf R10, Blackburn J.
Obv. Rad. bust l., *wigraed* (runic, retrograde) before face.
Rev. Standard.
 Weight: 1.0 g. Die axis 270°.
 King's Lynn, near, Norfolk. M/d find, by 2005.
 (EMC 2005.0274) A.A.
141. Penny ('sceat'), plated imitation of Series R.
Obv. Rad. bust r., runic inscription before face.
Rev. Standard.
 Weight: 0.7 g.
 Newark, near, Nottinghamshire. M/d find, 1 November 2005. Found by Richard Northey.
 (EMC 2005.0243) M.R.A.
142. Penny ('sceat'), Series R4/Type 51 (Saltire-Standard) 'mule', North 159.
Obv. Rad. bust r., runic inscription before face.
Rev. Saltire standard.
 Weight: 0.91 g.
 Chingford. M/d find, by 2005.
 (EMC 2005.0143) B.H./M.R.A.
143. Penny ('sceat'), Series R derivative, cf. Metcalf, *Thrymsas and Sceattas*, 510–11.
Obv. Helmeted bust l.
Rev. Cross with annulet ends.
 Weight not recorded.
 Deal, near, Kent. M/d find, by 2005.
 (EMC 2005.0161) A.A.
144. Penny ('sceat'), Series S (Type 47), North 121.
Obv. Female centaur.
Rev. Whorl of four wolf-worms.
 Weight: 1.0 g.
 Cambridge, near. M/d find, by 2005.
 (EMC 2005.0264) A.A.
145. Penny ('sceat'), Series S (Type 47), North 121.
Obv. Female centaur.
Rev. Whorl of four wolf-worms.
 Weight not recorded.
 Cliffe, Medway. M/d find, 1 June 2003. Found by Richard Gavin.
 (PAS KENT-8FC492; EMC 2006.0032) J.R.B.
146. Penny ('sceat'), Series U (Type 23b), imitative, North 83.
Obv. Standing figure, head r., holding two crosses.
Rev. Bird-in-vine, facing r.
 Weight not recorded.
 Diss, near, Norfolk. M/d find, Autumn 2004.
 (EMC 2005.0035) A.A.
147. Penny ('sceat'), Series U (Type 23d), imitative, North 83.
Obv. Standing figure, head l., holding two crosses.
Rev. Bird-in-vine, facing l.
 Weight: 1.3 g.
 Thurrock area. M/d find, c. 1999.
 The designs are laterally reversed.
 (EMC 2005.0034) A.A.
148. Penny ('sceat'), Series U (Type 23d), imitative, North 83.
Obv. Standing figure, head l., holding two crosses.
Rev. Bird-in-vine, facing r.
 Weight: 1.04 g.
 Cambridge. M/d find, by 2005.
 The obverse design is laterally reversed.
 (EMC 2005.0112) B.H./M.A.S.B.
149. Aldfrith of Northumbria (685–704), North 176, York.
Obv. +ÆLDFRIDU2 (S on its side).
Rev. Triple-tailed quadruped l.
 Weight not recorded.
 South Essex. M/d find, 2004 or 2005. Found by Ron Patch.
 (EMC 2005.0007) M.R.A.
150. Aldfrith of Northumbria (685–704), North 176, York.
Obv. +ÆLDFRIDU2 (S reversed).
Rev. Triple-tailed quadruped l.
 Weight: 0.8 g. Die axis 270°.
 East Yorkshire. M/d find, May 2005.
 (EMC 2005.0260) A.A.
151. Aldfrith of Northumbria (685–704), North 176, York.
Obv. +ÆLDFRIDU2 (S reversed).
Rev. Triple-tailed quadruped l.
 Weight not recorded.
 Cotgrave, near, Nottinghamshire. M/d find, by 2005.
 (EMC 2005.0282) M.R.A.
152. Eadberht of Northumbria (737–58), North 177, York.
Obv. +ÆADBERHTVS
Rev. Quadruped r.
 Weight: 0.98 g.
 Kcelby, Lincolnshire. M/d find, by 2005. Found by Paul Campbell.
 (PAS LIN-8987F3; EMC 2006.0042) A.D./J.R.B.

153. Beonna of East Anglia (749–c.760), North 430, East Anglian mint, Efe.

Obv. +BEONNA REX (partly runic).

Rev. +EFE

Weight: 0.75 g (broken and repaired). Die axis 180°.

Billingford, Norfolk. M/d find, May 2005. Found by T. Church.

(Norfolk HER 7206; EMC 2005.0177) A.B.M.

154. Alhred of Northumbria (765–74). North 179, York.

Obv. ALCHRE[] (reading outwardly and retrograde).

Rev. Quadruped r., cross below.

Weight: 0.64 g (chipped).

Hart, Hartlepool. M/d find, by 2005.

(EMC 2005.0202) I.P./M.R.A.

155. Ælfwald I of Northumbria (778–88). North 181, York.

Obv. +ÆLEVALDVS (Æ and L runic, D and S reversed).

Rev. Quadruped r.

Weight not recorded.

South Yorkshire. M/d find, 4 August 2005.

(EMC 2005.0200) M.R.A.

156. Æthelred I of Northumbria. 2nd reign (790–6). North 185, York, Ceolbald.

Obv. +AEDILRED

Rev. +CEOLBALD

Weight: 1.0 g. Die axis 270°.

North Humberside. M/d find, by 2005.

(EMC 2005.0125) A.A.

Styca

157. Æthelred II of Northumbria. 2nd reign (c.844–8), copper-alloy styca, North 190, York, Eardwulf.

Obv. +EÐILRED RX (retrograde).

Rev. +EARDVVLF

Weight: 0.9 g.

Torksey, Lincolnshire. M/d find, 1989.

(PAS DENO-87CE96; EMC 2006.0019) R.A./J.R.B.

158. Æthelred II of Northumbria. 2nd reign (c.844–8), copper-alloy styca, North 190, York, Eardwulf.

Obv. +EÐILRED REX (retrograde).

Rev. +EARDVVLF (retrograde).

Weight: 0.94 g.

Torksey, Lincolnshire. M/d find, 1989.

(PAS DENO-8799A4; EMC 2006.0020) R.A./J.R.B.

159. Æthelred II of Northumbria. 1st or 2nd reign (c.840–4, 844–8), copper-alloy styca, North 188 or 190, York, uncertain moneyer.

Obv. +EÐILRED[]X

Rev. Illegible.

Weight: 0.79 g.

Walsingham, Norfolk. M/d find, 1 January 2005.

(PAS LANCUM-8F4592; EMC 2006.0037) D.B./J.R.B.

Later Anglo-Saxon Coins

160. Offa of Mercia (757–96), Light Coinage, Blunt 17, Chick 106, North 271, Canterbury, Eoba.

Obv. +OFRM

Rev. +EOBÆ

Weight: 1.07 g.

Wrotham, Kent. M/d find, 11 September 2005. Found by Geoff Burr.

A new specimen of type 106 in Derek Chick's forthcoming *The Coinage of Offa and His Contemporaries*. Same obverse die as SCBI 20, 552 and a coin found near Coddham, Suffolk (Chick 106a and b). (PAS KENT-2844F3; EMC 2006.0035) R.N.

161. Offa of Mercia (757–96), Light Coinage, Blunt 20, North 262, Canterbury, Udd.

Obv. +OFFA REX

Rev. +VDD

Weight not recorded (chipped).

Newark, Nottinghamshire. M/d find, 13 October 2005. Found by Richard Northey.

Chick 137d. Same obverse die as Coin Register 2000, no. 75.

(EMC 2005.0227) R.N.

162. Offa of Mercia (757–96), Light Coinage, Blunt 49 var., Chick 95d, North 291, Canterbury, Ealhæd.

Obv. OFFA REX

Rev. EALRED

Weight not recorded.

Bidford-on-Avon, Warwickshire. M/d find, 2003.

A variant of Blunt type 49 with initial letter E in place of cross. Same obverse die as EMC 2001.1158 and CNG auction (Triton III), 30 November 1999, lot 1464.

(EMC 2005.0006) D.C./R.N.

163. Offa of Mercia (757–96), Light Coinage, Blunt 30, Chick 22, North 309, London, Dud.

Obv. OFFA

Rev. +DVD

Weight: 1.2 g.

Woodnesborough, Kent. M/d find, 12 December 2004. Found by Cliff Bradshaw.

(EMC 2006.0120) D.J.H.

164. Offa of Mercia (757–96), Light Coinage, Blunt 57, Chick 10, North 310, London, Æthelwald.

Obv. +OFFA REX+

Rev. +EÐILVÆLD

Weight: 1.27 g.

Colchester, near, Essex. M/d find, 16 October 2005.

A new specimen of Chick 10: a well-represented type of which this is the twentieth known example. This is the only reverse die to place a cross before an uncial E. Three other specimens were struck from the same obverse die. (EMC 2005.0229) C.M./R.N.

165. Offa of Mercia (757–96), Light Coinage, Blunt -, Chick 165b, North -, East Anglian mint, Eadnoth.

Obv. OFFA around cross of lobes.

Rev. Eadnoth (runic) in panel.

Weight: 1.24 g (cracked and chipped). Die axis 0°.

Chiseldon, Wiltshire. M/d find, 2005.

Eadnoth was unknown to Blunt in 1961, but two distinct types are now known from four specimens. This coin is of the same type as an example in the Fitzwilliam Museum (ex Blunt) (Chick 165a), but differs very slightly in its obverse design.

(PAS WILT-E14271; EMC 2005.0290) K.H./R.N.

166. Offa of Mercia (757–96), Heavy Coinage, Blunt 104, Chick 239j, North 320, Canterbury, Osmod.

Obv. M / +OFFA / REX (bar of contraction over M).

Rev. OSMOD

Weight: 1.13 g.

Harston, Cambridgeshire. M/d find, by 2005.

(EMC 2005.0105) B.H./R.N.

167. Æthelheard, archbishop of Canterbury (793–805), Chick 247h, North 229, Canterbury.
Obv. M / +OFFA / REX (bar of contraction over M).
Rev. EDIL / HEARD / ARCEPI (bars of contraction over AR and EPI).

Weight: 1.43 g. Die axis 90°.

Ely, Cambridgeshire. M/d find, January 2005. Found by Simon Tough.

Same dies as BMA 192 and SCBI 16, 84.

(EMC 2005.0030)

R.N.

168. Coenwulf of Mercia (796–821), BLS —, North —, London, Winoth.

Obv. M / CENVVLF / REX (N reversed).

Rev. VV / IN / O / B (retrograde).

Weight not recorded.

Hatfield, Hertfordshire. M/d find, 2003.

A previously unrecorded reverse design, which has affinities with the tribach and cross moline types of Coenwulf. The obverse type is known from coins of the London moneyers Ciolhard, Diola, Ibba, Pendwine and Wilhun (BLS Cn. 1–3, North 341, 343).

(EMC 2005.0123)

P.M./M.R.A.

169. Coenwulf of Mercia (796–821), BLS Cn. 10, North 342, Canterbury, Ethelmod.

Obv. +COENVVLF REX

Rev. EÐ / EL / MOD

Weight: 1.41 g.

Grantham area, Lincolnshire. M/d find, 2005. Found by Kenneth Walker.

(EMC 2005.0215)

M.R.A.

170. Coenwulf of Mercia (796–821), BLS Cn. 46, North 347, Canterbury, Werheard.

Obv. +COENVVLF REX M (bar of contraction over M).

Rev. +PERHEARD MONETĀ (NE ligated).

Weight not recorded (chipped). Die axis 90°.

North Lincolnshire. M/d find, by 2001.

(EMC 2005.0100)

J.P./M.R.A.

171. Coenwulf of Mercia (796–821), BLS Cn. 72, North 352, Rochester, Ealhstan.

Obv. +COENVVLF REX

Rev. +EALHTAN MONTĀ

Weight: 1.37 g. Die axis 90°.

Duxford, near, Cambridgeshire. M/d find, August 2005. Found by Graham Marshall.

(EMC 2005.0197)

M.R.A.

172. Coenwulf of Mercia (796–821), BLS Cn. 59, North 358, Canterbury, Werheard.

Obv. [JENVVLF REX M

Rev. +PER[]ARD MONETĀ (NE ligated).

Weight: 1.23 g (chipped). Die axis 0°.

Sevenoaks, near, Kent. M/d find, by 2005.

(EMC 2005.0066)

B.H./M.R.A.

173. Coenwulf of Mercia (796–821), BLS Cn. 98, North 363, East Anglian mint, Lul.

Obv. +COENVVLF REX M

Rev. +LVL

Weight: 1.31 g (chipped). Die axis 0°.

Colchester, near, Essex. M/d find, 10 October 2005.

(EMC 2005.0226)

C.M./M.R.A.

174. Coenwulf of Mercia (796–821), BLS Cn. 108, North 364, East Anglian mint, Wihred.

Obv. [JLF []

Rev. []HEC []

Weight: 0.62 g (fragment). Die axis 270°.

Suffolk. M/d find, by 2005.

(EMC 2005.0064)

B.H./M.R.A.

175. Coenwulf of Mercia (796–821), BLS Cn. 113, North 370, East Anglian mint, Wodel.

Obv. +COEN[]LF REX M

Rev. PODEL+

Weight not recorded (chipped). Die axis 180°.

King's Lynn, near Norfolk. M/d find, by 2005.

(EMC 2005.0247)

A.A.

176. Cuthred of Kent (798–807), BLS —, North —, Canterbury, Sæberht.

Obv. +CVÐRED REX

Rev. SEB / ERHT (S reversed)

Weight: 1.26 g (chipped). Die axis 90°.

Torksey, Lincolnshire. M/d find, by 2005.

A previously unrecorded reverse type for Cuthred, from a reverse die similar to the reverse of a coin of Coenwulf of Mercia (796–821) (BLS Cn.4), but with the initial S of the moneyer's name reversed.

(EMC 2005.0114)

A.G./M.R.A.

177. Cuthred of Kent (798–807), BLS Cd. 7, North 209, Canterbury, Werheard.

Obv. +CVÐRED REX

Rev. +PE / RHE / ARD

Weight not recorded.

South Yorkshire. M/d find, 2005. Found by Kenneth Walker.

(EMC 2005.0194)

M.R.A.

178. Wulfred, archbishop of Canterbury (805–32), North 240/1, Canterbury, Sæberht.

Obv. +VVLFREDI Ā []HIEPI

Rev. +SÆBERHT []IONETĀ, monogram of DORBERNIA

Weight: 1.16 g (chipped and cracked). Die axis 270°.

Hitchin, Hertfordshire. M/d find, 2004.

(EMC 2005.0224)

B.H./M.R.A.

179. Wulfred, archbishop of Canterbury (805–32), North 240/1, Canterbury, Swefheard.

Obv. +VVLFRED ARC []PI

Rev. []SVVEFHERD MONE [] [NE ligated], monogram of DORBERNIA

Weight not recorded (chipped). Die axis 90°.

Thornbury, South Gloucestershire. M/d find, July 2005. Found by Rev. Peter Twinn.

(EMC 2005.0185)

M.R.A.

180. Ecgbert of Wessex (802–39), Portrait/Dorob C type, North 573, Canterbury, Diormod.

Obv. +ECBEARHT REX

Rev. +DIORMOD.MNET (NE ligated).

Weight: 1.30 g. Die axis 200°.

Farnborough, near, Kent. M/d find, by 2005. Found by Mr Scott.

(EMC 2005.0039)

B.J.C.

181. Ecgbert of Wessex (802–39), Portrait/Dorob C type, North 573, Canterbury, Diormod.

Obv. +E []T REX

Rev. []IOMO []

Weight: 0.64 g (fragment). Die axis 270°.

Kent. M/d find, by 2005.

(EMC 2005.0058)

B.H./M.R.A.

182. Ecgberht of Wessex (802–39), Portrait/Dorob C type, North 573, Canterbury, Tidbearht.

Obv. +ECGBERHT RE

Rev. +TIDBEAHT JHT.L

Weight: 1.21 g (chipped).

Hampshire, M/d find, by 2005.

(EMC 2005.0285)

B.H./M.R.A.

183. Æthelstan of East Anglia (825–45), North –, East Anglian mint, Eadgar.

Obv. +EDLSTAN DEX (reading outwardly and retrograde), cross on omega.

Rev. +EADGAIR MON (reading outwardly and retrograde).

Weight: 1.3 g.

Newark, Nottinghamshire, M/d find, 5 December 2005. Found by William French.

This is a type previously only recorded from a coin found at Upper Beeding, West Sussex in 2001 (Coin Register 2001, no. 64).

(EMC 2005.0287)

M.R.A.

184. Æthelstan of East Anglia (825–45), North 439, East Anglian mint.

Obv. +EDELSTAN

Rev. +REX-ÆNG

Weight not recorded.

Norfolk, M/d find, by 2005.

(EMC 2005.0062)

B.H./M.R.A.

185. Æthelstan of East Anglia (825–45), North 446/3, East Anglian mint, Monne.

Obv. EÐILSTAN R. Æ (5 on its side).

Rev. MON MONET

Weight not recorded (pierced).

Aylesbury, Buckinghamshire, M/d find, by 2005.

(EMC 2005.0031)

A.A.

186. Æthelwulf of Wessex (839–58), North 597 var., Rochester.

Obv. +ÆÐELVVL F REX, cross moline.

Rev. +OCCIDENTALIVM around SÆX / ONIO / RVM in three lines.

Weight not recorded (fragmentary). Die axis 270°.

Yorkshire, M/d find, by 2005.

A variant of North 597, with a cross moline instead of a cross pattée saltire.

(EMC 2005.0182)

D.D./M.R.A.

187. Æthelwulf of Wessex (839–58), North –, Rochester, Dunn.

Obv. EÐELVVL F REX

Rev. +DVVN MON[J]TÆ

Weight: 0.77 g (chipped and pierced).

Lincolnshire, M/d find, by 2005.

A previously unrecorded combination of a Phase II portrait obverse (cf. North 599–601) with a cross moline reverse of the moneyer Dunn.

(EMC 2005.0178)

B.H./M.R.A.

188. Æthelweard of East Anglia (845–55), North 450, East Anglian mint, Dudda.

Obv. EÐELPÆRD REX (retrograde).

Rev. DVDDVÆ.M.HE

Weight not recorded (chipped). Die axis 90°.

King's Lynn, near, Norfolk, M/d find, by 2005.

(EMC 2005.0246)

A.A.

189. Eadmund of East Anglia (855–69), North 456, East Anglian mint, Sigered.

Obv. +EADMVND REX

Rev. +SIGERED MON

Weight: 1.05 g (chipped and cracked).

Thetford, Norfolk, M/d find, by 2005. Found by Steve Grey.

(EMC 2005.0042)

F.M.

190. Eadmund of East Anglia (855–69), North 457, East Anglian mint, Æthelhelm.

Obv. EADMUND RE ÆN (reading retrograde).

Rev. .ÆÐELHELM

Weight: 1.1 g. Die axis 90°.

Driffield, near, East Yorkshire, M/d find, by 2005.

(EMC 2005.0147)

A.A.

191. Æthelberht of Wessex (858–65), Inscribed Cross type, North 620, Badenoth.

Obv. +ÆÐELBEARHT REX (HT ligated).

Rev. +BÆDEN / OÐ MO / N / E / T / Æ

Weight: 0.87 g.

Norfolk, M/d find, by 2005.

(EMC 2005.0059)

B.H./M.R.A.

192. Burgred of Mercia (852–74), North 423, Cuthhere.

Obv. BVRGRED REX

Rev. MON / CVÐHERE / ETÆ

Weight: 1.12 g.

Kent, M/d find, by 2005.

(EMC 2005.0065)

B.H./M.R.A.

193. Burgred of Mercia (852–74), North 423, Wine.

Obv. BVRGRED REX

Rev. MON / +VVINE / ETÆ

Weight: 0.7 g (broken into five pieces and chipped).

Harlington, Bedfordshire. Excavation find, Wessex Archaeology, 2000.

(EMC 2005.0122)

N.C./M.R.A.

194. Burgred of Mercia (852–74), North 426, Dudda.

Obv. +BVRGRED REX

Rev. MON / +DVDDÆ / ETÆ

Weight: 0.9 g (chipped).

Springhead Quarter, Kent. Excavation find, Wessex Archaeology, by 2005.

(EMC 2005.0121)

N.C./M.R.A.

195. Alfred (871–99), Lunette type, North 625, Canterbury, Æthelheah.

Obv. +ÆLBRED: REX

Rev. HMO / EÐELEÆ / NETÆ (NE ligated).

Weight: 0.87 g (chipped). Die axis 90°.

Kent, M/d find, by 2005.

(EMC 2005.0060)

B.H./M.R.A.

196. Ceolwulf II of Mercia (874–79), Cross-and-Lozenge type, North 429, London, Beagstan.

Obv. +CIOLV[J] F REX M

Rev. BE / ÆG / ST / ÆN

Weight: 1.28 g.

Linton, near, Cambridgeshire, M/d find, by 2005.

(EMC 2005.0108)

B.H./M.R.A.

197. Alfred (871–99), London Monogram type, North 646, London, Tilewine.

Obv. [J] FRED RE

Rev. TILEVIN[J] / LONDONIÆ monogram / MONE+ (NE ligated).

- Weight: 1.30 g (chipped).
London (City). M/d find, September 2005. Found by Firth Fairbank.
(PAS LON-EBFFD8; EMC 2005.0211) P.S./J.R.B.
198. Viking Danelaw imitation of Alfred (871–99), Two-Line type, North 475/1, Cuthberht.
Obv. +ELFRED RE
Rev. CVDB / ERHE (V inverted).
Weight: 1.23 g. Die axis 90°.
Harston, near, Cambridgeshire. M/d find, 2004.
The low weight and inverted V in the moneyer's name indicate that this is an imitation of a coin of a moneyer active in the west Midlands (probably Chester or Shrewsbury) in the 880s and 890s.
(EMC 2005.0047) B.H./M.A.S.B.
199. Edward the Elder (899–924), Two-Line type, North 649, Deorwald.
Obv. +EADWVEARD REX
Rev. DEORV / VALD MO
Weight: 1.57 g. Die axis 300°.
Bedford. M/d find, c.1996–97. Found by Andy Horwood.
(EMC 2005.0029) M.R.A.
200. Viking Danelaw imitation of Edward the Elder (899–924), irregular blundered series, Two-Line type, North 477, uncertain moneyer.
Obv. +EYDVVEARD REX
Rev. +EIOIA / BEIOE
Weight not recorded (chipped).
Suffolk. M/d find, by 1996.
Similar to two coins in the Morley St Peter, Norfolk, hoard (SCBI 26, 174–5), but from different dies.
(EMC 2005.0110) R.O./M.A.S.B.
201. St Edmund Memorial coinage, earlier phase (c.895–905), North 483, Adradus.
Obv. +SC EAINVMD RE (S on its side).
Rev. +ADRADVS VVONE (NE ligated).
Weight: 1.11 g.
Lincolnshire. M/d find, by 2005.
(EMC 2005.0170) B.H./M.R.A.
202. St Edmund Memorial coinage, earlier phase (c.895–905), North 483, Dægmond.
Obv. +SC EADMVNDE (S on its side).
Rev. +DAIEMOND MOI
Weight: 1.44 g (chipped). Die axis 180°.
Shipham, Norfolk. M/d find, by 2005. Found by S. Ottaway.
(EMC 2005.0206) A.B.M.
203. St Edmund Memorial coinage, later phase (c.905–18), North 483, uncertain moneyer.
Obv. +SC EIDNV (S on its side, N reversed).
Rev. +CIST:CN (S on its side).
Weight: 1.41 g.
Linton, near, Cambridgeshire. M/d find, by 2005.
(EMC 2005.0116) B.H./M.R.A.
204. Scandinavian Kingdom of York, Cnut, North 501, York.
Obv. +CVNNETTI
Rev. CNVT REX
Weight: 1.11 g.
Wharham le Street, North Yorkshire. M/d find, 1997–2002. Found by Ian Postlethwaite.
(EMC 2005.0164) M.R.A.

205. Scandinavian Kingdom of York, St Peter coinage, Phase 1 (Two-Line Horizontal), North 551, York.
Obv. SCIE / TIHIO (S on its side, bar of contraction over IE).
Rev. +EBORACE CIV
Weight not recorded.
Yarburgh, near, Lincolnshire. M/d find, January 2005.
(EMC 2005.0040) J.S.
206. Æthelstan (924–39), Two-Line type, HR1, North 668, uncertain moneyer.
Obv. []LSTAN[]
Rev. [] / MON
Weight not recorded (cut halfpenny or trimmed fragment).
Norfolk. M/d find, by 2005.
A variant of HR1 with an annulet in the centre of the reverse.
(EMC 2005.0063) B.H./M.R.A.
207. Eadred (946–55), Two-Line type, HR1, North 707, Æthelwulf.
Obv. EADRED REX
Rev. EFERV / LF MOT
Weight: 1.30 g.
Cambridge. M/d find, by 2005.
(EMC 2005.0061) B.H./M.R.A.
208. Eadred (946–55), Bust Crowned type, North 713, East Anglian mint, Hunlaf.
Obv. +EADRED REX
Rev. +HVNL.A. MON
Weight: 1.18 g (chipped). Die axis 180°.
Oxborough, near, Norfolk. M/d find, November 2004. Found by Robbie Gould.
A previously unrecorded moneyer for the type.
(EMC 2005.0005) M.R.A.
209. Eadred (946–55), halfpenny, Floral 'a' type, North —, Shrewsbury?, Eofermund.
Obv. +E[]DRE[]
Rev. []OFERMV[], in field N(?) to L, P(?) to R.
Weight: 0.33 g (fragment). Die axis 120°.
Wadborough, Worcestershire. M/d find, 14 August 2005. Found by Dean Crawford.
A previously unrecorded type for a halfpenny of Eadred (cf. the Floral 'a' type of Eadwig, North 738). Acquired by the Fitzwilliam Museum.
(EMC 2005.0190) M.R.A.
210. Edgar (957/9–75), Two-Line type, HP1, North 742, York?, Asmund.
Obv. +[]DGAR REX ANG
Rev. ASMV / ND MO[]
Weight not recorded (chipped).
Barton-on-Humber area, North Lincolnshire. M/d find, December 2004. Found by Martin Jensen.
The moneyer Asmund/Osmund is previously unrecorded for pre-Reform issues of Edgar. This variety (HP1), known from five other specimens of different moneyers, is attributed to York (CTCE, p. 162). Osmund is recorded as a York moneyer in Edgar's Reform Small Cross type.
(EMC 2005.0004) M.A.S.B.
211. Edgar (957/9–75), Bust Crowned type, North 750, East Anglian mint, Bruning.
Obv. +EADGA[]
Rev. +BRV[]ETAN

Weight: 0.79 g (cut halfpenny or trimmed fragment). Die axis 270°.

Sevenoaks, near, Kent. M/d find, by 2005.

The final letter (N) of the reverse inscription might indicate that this is a coin of Norwich.

(EMC 2005.0051)

B.H./M.R.A.

212. Edgar (957/9–75), Bust Crowned type, North 750, East Anglian mint. Folchard.

Obv. +EADGAR REX

Rev. +FOLCHARD MONETA

Weight: 1.42 g (chipped). Die axis 270°.

Hindringham, Norfolk. M/d find, by 2005. Found by Steve Grey.

(EMC 2005.0238)

A.B.M.

213. Æthelred II (978–1016), Long Cross type, North 774, Lincoln. Colgrim.

Obv. +EDELRED REX ANGL

Rev. +COLGRIM MO LINC

Weight not recorded.

Welbourn, Lincolnshire. M/d find, by 2005. Found by Ron Teather.

(PAS LIN-1B3988; EMC 2006.0039)

A.D./J.R.B.

214. Æthelred II (978–1016), Long Cross type, North 774, London. Æthelweard.

Obv. +EDELRED REX ANGL

Rev. +EDELPERD MVO LVND

Weight: 1.58 g (slightly chipped).

Suffolk. M/d find, by 2005.

(EMC 2005.0107)

B.H./M.R.A.

215. Æthelred II (978–1016), Last Small Cross type, North 777, London. Godwine.

Obv. +EDELRED REX ANGL

Rev. +GODPINE ON LVNDEI

Weight: 1.09 g. Die axis 90°.

Godmanchester, Cambridgeshire. M/d find, late 2003. Found by Richard Ashford.

(EMC 2005.0119)

M.R.A.

216. Æthelred II (978–1016), Last Small Cross type, North 777, Southwark. Eadwine.

Obv. +EDELRE[JED REX A

Rev. +EADP[JE ON SVDEGE

Weight: 1.0 g (cracked and chipped). Die axis 90°.

Wallingford, near, Oxfordshire. M/d find, 2005.

An unusual obverse reading, which may be completed as

+EDELRE[DR JED REX A.

(EMC 2005.0250)

C.H./M.R.A.

217. Cnut (1016–35), Quatrefoil type, North 781, Lincoln. Æthelmar.

Obv. +CNVT REX ANGLORV.

Rev. +EDELMI[JR MO LINC (NC ligated).

Weight: 1.03 g.

Tetford, Lincolnshire. M/d find, September 2005. Found by Rod Furniss.

(PAS DENO-00C081; EMC 2006.0016)

R.A./J.R.B.

218. Cnut (1016–35), Quatrefoil type, North 781, Lincoln. Godwine.

Obv. +CNVT REX ANGLORV

Rev. +GODPINE MVO LINC (NC ligated)

Weight: 0.91 g (cracked and slightly chipped). Die axis 270°.

Penllyn, Vale of Glamorgan. M/d find, January 2005. Found by Malcolm Jones.

From the same dies as Mossop, pl. XXXIV, 13. The coin has been presented to the National Museum of Wales by the finder and the landowner.

(EMC 2006.0159)

E.M.B.

219. Cnut (1016–35), Quatrefoil type, North 781, Rochester. Godwine.

Obv. +CNVT REX ANGLORV (NG ligated).

Rev. +GODPINE ROFR (NE ligated).

Weight not recorded.

Thurnham, Kent. M/d find, 2005.

(EMC 2005.0118)

J.D./M.R.A.

220. Cnut (1016–35), Pointed Helmet type, North 787, London. Eadwine.

Obv. +CNVT REX AN

Rev. +EDPINE ON LVNDE

Weight: 0.60 g (traces of mount on obverse).

London (City). M/d find, 2004. Found by Stephen Dwyer.

This coin had been mounted as brooch to display the cross design of the reverse.

(PAS LON-1F8030; EMC 2006.0044)

F.S./M.R.A.

221. Cnut (1016–35), Pointed Helmet type, North 787, London. Eadwold.

Obv. +CNVT REX AN

Rev. +EADPOLD ON LVND

Weight: 0.81 g (chipped). Die axis 180°.

Winwick, Cambridgeshire. M/d find, c. September 2004.

Found by Colin Stewart.

(EMC 2005.0048)

M.R.A.

222. Cnut (1016–35), Pointed Helmet type, North 787, London. Stithulf.

Obv. +CNVT REX:

Rev. +STITHULF ON LVNDE

Weight: 0.9 g.

Little Wilbraham, Cambridgeshire. M/d find, 2003. Found by Tony Carter.

(EMC 2005.0186)

M.R.A.

223. Cnut (1016–35), Short Cross type, North 790, London. Æthelwig.

Obv. +CNVT REX:

Rev. +ÆLFWIG ON LVNDE

Weight: 1.02 g.

Gayton, Norfolk. M/d find, August 2005. Found by J. Wells.

(EMC 2005.0222)

M.R.A.

224. Cnut (1016–35), Short Cross type, North 790, London. Eadwine.

Obv. +CNVT REX:

Rev. +EDPINE ON LVND

Weight: 1.1 g.

Sundridge, Kent. M/d find, February 1999. Found by J. Newton.

(EMC 2005.0137)

M.R.A.

225. Cnut (1016–35), Short Cross type, North 790, Stamford. Thurstan.

Obv. +CNVT REX:

Rev. +ÞVSTAN ON STANFOR (OR ligated).

Weight: 1.10 g.

Grimston, Norfolk. M/d find, 2005. Found by Adrian Reeve.

(Norfolk HER 11789; EMC 2005.0195)

A.B.M.

226. Cnut (1016–35), Short Cross type, North 790, uncertain mint and moneyer.
Obv. []RE[]
Rev. []FPIN[]
 Weight: 0.21 g (cut farthing).
 Great Tey, Essex. M/d find, by 2005. Found by Stuart Elton.
 (PAS ESS-622426; EMC 2006.0025) C.A.M./J.R.B.
227. Harold I (1035–40), Jewel Cross type, North 802, Oxford. Ælfwine.
Obv. HÆROLD REX.
Rev. +ÆLPINE ONN OXCE (NN ligated).
 Weight not recorded.
 Doncaster, near. M/d find, by 2005.
 (EMC 2005.0244) A.G./M.R.A.
228. Harold I (1035–40), Jewel Cross type, North 802, Thetford. Ælfwald.
Obv. HÆROLD REX
Rev. +ALFPAID ON ðEF.O
 Weight: 0.91 g.
 West Row, Suffolk. M/d find, May 2005.
 Lincoln style dies.
 (EMC 2005.0218) I.H./M.R.A.
229. Harold I (1035–40), Fleur-de-Lis type, North 803, Canterbury. Wulfwig.
Obv. HÆROLD REX
Rev. +PVLPIG ON CENT
 Weight not recorded (cracked).
 Romney Marsh, Kent. M/d find, 15 August 2005. Found by Joan Castle.
 (PAS KENT-4F14E1; EMC 2005.0193) J.R.B./M.R.A.
230. Harold I (1035–40), Fleur-de-Lis type, North 804, Colchester. Wulfwine.
Obv. HÆROLD RECX
Rev. +PLF[P?E] ON COLE (NC ligated).
 Weight: 1.12 g.
 Cambridgeshire. M/d find, by 2005.
 (EMC 2005.0144) B.H./M.R.A.
231. Harthacnut (1035–7, 1040–2), 'Cnut' Arm and Sceptre type, North 799/1, Canterbury. Caldwine.
Obv. +CNVT RECX
Rev. +CÆLDEPINE ON CE
 Weight not recorded (cracked).
 Great Tey, Essex. M/d find, 4 May 2005. Found by Stuart Elton.
 A new moneyer for the type, previously recorded in the reigns of Harold I and Edward the Confessor.
 (EMC 2005.0151) M.R.A.
232. Edward the Confessor (1042–66), Pax type, North 813, Southwark. Wulfwine.
Obv. +EDPARD RECX
Rev. +PVLPIG ON SV.
 Weight: 1.01 g.
 Radley, Oxfordshire. M/d find, January 2005. Found by Stuart Piggott.
 (PAS BERK-359737; EMC 2006.0012) K.S./J.R.B.
233. Edward the Confessor (1042–66), Radiate Small Cross type, North 816, Chichester. Ælfwine.
Obv. +EDPERD REX
Rev. +ÆLPINE ON CIICESTR.
 Weight: 1.13 g.
 Crawley, Hampshire. M/d find, 7 February 2004. Found by Keith Lilliard.
 (PAS HAMP-27E4B2; EMC 2006.0028) J.Puls/J.R.B.
234. Edward the Confessor (1042–66), Radiate Small Cross type, North 816, Colchester. Brunhyse.
Obv. +EDPERD REX (double-struck).
Rev. +BR[]NHYSY ON CO (NC ligated).
 Weight: 0.92 g (slightly chipped).
 Evesham, near, Worcestershire. M/d find, 9 October 2005. Found by Dean Crawford.
 (EMC 2005.0225) M.R.A.
235. Edward the Confessor (1042–66), Radiate Small Cross type, North 816, uncertain mint and moneyer.
Obv. +EDPERD REX:
Rev. []JV[]ON[]
 Weight: 1.09g.
 Wymondham, Norfolk. Excavation find, 2004.
 (EMC 2005.0046) A.B.M.
236. Edward the Confessor (1042–66), Trefoil Quadrilateral type, North 817, uncertain mint, Godwine.
Obv. []JD RE.
Rev. +GODPIN[]
 Weight: 0.90 g.
 London (City). M/d find, 2004. Found by Stephen Dwyer.
 (PAS LON-1F59D1; EMC 2006.0043) F.S./J.R.B.
237. Edward the Confessor (1042–66), Small Flan type, North 818, Canterbury. Leofwine.
Obv. +EDPERD RE
Rev. +LEOFFINE ON CEN
 Weight not recorded.
 Basingstoke, Hampshire. M/d find, January 2005. Found by Tisha Window.
 (PAS HAMP-1F58A4; EMC 2006.0027) D.W./J.R.B.
238. Edward the Confessor (1042–66), Small Flan type, North 818, Canterbury. uncertain moneyer.
Obv. +ED[]RD
Rev. []NE ONCE[] (NE and NC ligated).
 Weight: 0.35 g (cut halfpenny, chipped).
 Sleaford, Lincolnshire. M/d find, 1 September 2005. Found by Tony Wright.
 Guldewine and Leofwine struck at Canterbury in this type.
 (PAS DENO-7D4565; EMC 2006.0017) E.W.D./R.A./J.R.B.
239. Edward the Confessor (1042–66), Expanding Cross type, light issue, North 820, London. Godric.
Obv. +EDPRD REX
Rev. +GODRIC ON LVNDE.
 Weight: 1.34 g (mounted on obverse with two rivets). Die axis 90°.
 Swavesey, Cambridgeshire. M/d find, 23 January 2005. Found by Tim Jackson.
 (EMC 2005.0008) M.R.A.
240. Edward the Confessor (1042–66), Expanding cross type, heavy issue, North 823, London. Leofred.
Obv. +EDPERD REX:
Rev. +LEOFRED ON LVND (ND ligated).
 Weight: 1.51 g (cracked).
 Cransford, Suffolk. M/d find, 2005. Found by Brian Sperty.
 (PAS: SF-648AA8; EMC 2005.0235) F.M./J.R.B.

241. Edward the Confessor (1042–66), Sovereign/Eagles type, North 827, Thetford, Thorferth.
Obv. EADRPD X ANGLOR
Rev. +DOFERÐ ON ÐET
 Weight: 1.04 g.
 Essex. M/d find, by 2005.
 (EMC 2005.0248) B.H./M.R.A.
242. Edward the Confessor (1042–66), Hammer Cross type, North 828, Oxford, Godwine.
Obv. +EDPERD REX[]
Rev. +GODPINE ON OXENE
 Weight: 1.22 g (cracked).
 Old Romney, Kent. M/d find, 9 July 2005. Found by Bernard Nutbrown.
 (EMC 2005.0192) M.R.A.
243. Edward the Confessor (1042–66), Hammer Cross type, North 828, uncertain mint, Leofwine.
Obv. []ARRD[]
Rev. +LIOFPI:ON[]
 Weight: 0.55 g (cut halfpenny).
 Hayle, Cornwall. M/d find, June 2005. Found by D. Edwards.
 (PAS CORN-F06E11; EMC 2006.0015) A.T./J.R.B.
244. Edward the Confessor (1042–66), Bust Facing/Small Cross type, North 830, Canterbury, Wulfweard.
Obv. EADP[]
Rev. +PVLFP[]NT
 Weight: 0.59 g (cut halfpenny). Die axis 90°.
 Southey, Suffolk. M/d find, 2005. Found by Chris Miles.
 (PAS: SF-BFB855; EMC 2005.0220) F.M./J.R.B.
245. Edward the Confessor (1042–66), Pyramids type, North 831, London, uncertain moneyer.
Obv. EDP[]
Rev. []N LVN[]
 Weight: 0.30 g (cut farthing).
 Godmanchester, Cambridgeshire. M/d find, c.2001. Found by Simon Ashford.
 (EMC 2005.0120) M.R.A.
246. Harold II (1066), Pax type, North 836, Lincoln, Ælfgeat.
Obv. +HAROLD REX A1
Rev. +ÆLGEAT ON LINCOI
 Weight: 1.20 g.
 Lincolnshire. M/d find, 2005. Found by Wayne Bealey.
 (EMC 2005.0245) M.R.A.
247. Harold II (1066), Pax type, North 836, London, uncertain moneyer.
Obv. []X ANG
Rev. +[]IDEI
 Weight not recorded (cut farthing).
 Minchinhampton, Gloucestershire. M/d find, by 2005.
 (PAS GLO-2A6D65; EMC 2006.0026) K.A./J.R.B.
248. Harold II (1066), Pax type, North 836, Norwich, Thurstan.
Obv. +HAROLD REX ANG
Rev. +VRSTAN ON NOR
 Weight: 1.24 g.
 Cambridgeshire. M/d find, by 2005.
 (EMC 2005.0057) B.H./M.R.A.
249. William I (1066–87), Bonnet type, BMC ii, North 842, London, Eadwine.
Obv. +PILLEMVS REX
Rev. +EADPINE ON LVN
 Weight: 1.31 g.
 Little Wilbraham, Cambridgeshire. M/d find, by 2005.
 Found by Duncan Pangborn.
 (EMC 2005.0103) F.M./M.R.A.
250. William I (1066–87), Bonnet type, BMC ii, North 842, York, Harthulf.
Obv. +PILLEMV REX I
Rev. +HARÐVL ON EOF
 Weight: 1.15 g.
 Ingleby Barwick, Stockton on Tees. M/d find, by 2005.
 (EMC 2005.0216) B.H./M.R.A.
251. William I (1066–87), Two Stars type, BMC v, North 845, uncertain mint and moneyer.
Obv. []ANI
Rev. []PINE[]
 Weight: 0.29 g (cut farthing).
 Thornbury, South Gloucestershire. M/d find, by 2005.
 Found by Rev. Peter Twinn.
 (EMC 2005.0141) M.R.A.
252. William I (1066–87), PAXS type, BMC viii, North 848, Colchester, Wulfric.
Obv. +PILLELM REX
Rev. +PVLFRIC ON COLE
 Weight: 1.32 g. Die axis 180°.
 Abridge, Essex. M/d find, c. 2000. Found by John Murphy.
 (EMC 2005.0180) M.R.A.
253. William I (1066–87), PAXS type, BMC viii, North 848, Southwark, Ædoulf.
Obv. []LEM REX
Rev. []DOLF ON S[]
 Weight: 0.62 g (cut halfpenny, broken into two pieces).
 Die axis 270°.
 Cambridge, near. M/d find, 28 September 2005. Found by Stephen Fordham.
 (EMC 2005.0232) M.R.A.
254. William I (1066–87), PAXS type, BMC viii, 'Devitun' mint, cf. North 848–50.
Obv. 'PILLEM REX', blundered; crowned bust facing, with sceptre to left.
Rev. [–] /// DEVITVN, retrograde.
 Weight not recorded (two fragments). Die-axis 90°.
 Aberavon Sands, Neath Port Talbot. M/d find, c. March 2004. Found by Ted Belmont.

The moneyer's name is lost, but the full mint reading survives. The variety with sceptre to the left of the king's portrait corresponds to BMC 887, but both dies appear to be hitherto unrecorded. The coin belongs to a series of unusual William I pennies, some reading 'Devitun', others 'Fani', long thought to be Welsh in origin. No Welsh mints have been recorded before the Normans, but a credible case has been made for minting at St David's (Dewi's town) and Abergavenny (Y Fenni in Welsh) during the 1080s (G.C. Boon, *Welsh Hoards 1979–1981* (Cardiff, 1986), p. 67). These coins are extremely rare and we cannot be sure, but the finding of an example in South Wales lends strong support to the idea that these issues do indeed come from Wales. A 'Fani' example was found many years ago at St David's (NMW 70.42H/3, loaned by Representative Body, Church in Wales). The new coin has been donated to the National Museum of Wales.
 (EMC 2006.0160) E.M.B.

255. Henry I (1100–35), Profile/Cross Fleury type, *BMC* ii, North 858, London, Ordgar.

Obv. +HE[]RI REX A

Rev. +ORDGAR ON LVN

Weight: 1.3 g.

Firle, East Sussex. M/d find, 13 February 2005. Found by Tony Head.

(EMC 2005.0044)

M.R.A.

256. Henry I (1100–35), PAX type, *BMC* iii, North 859, Dover, Manwine.

Obv. +HENRI RE[]

Rev. +MAN[]NE:ONDO[] (NE and ND ligated).

Weight not recorded.

Ongar, near, Essex. M/d find, 2005. Found by Edward Taylor.

A new type for the Dover mint. The Dover moneyer Manwine has previously been recorded in various types from William II *BMC* type iii to Henry I *BMC* type xiv.

(EMC 2005.0203)

J.P./M.R.A.

257. Henry I (1100–35), Voided Cross and Fleurs type, *BMC* v, North 861, uncertain mint and moneyer.

Obv. []E[]R[]

Rev. +R[]

Weight: 0.22 g (cut farthing).

Binnington, North Yorkshire. M/d find, 1997–2002. Found by Ian Postlethwaite.

(EMC 2005.0167)

M.R.A.

258. Henry I (1100–35), Quatrefoil with Piles type, *BMC* vii, North 863, London, Alfvret.

Obv. +HENRIC REX

Rev. +ALFVRET:ON:LVN

Weight: 1.4 g.

Cranfield, Northamptonshire. M/d find, 3 September 2005. Found by Chris Chandler.

(EMC 2005.0201)

M.R.A.

259. Henry I (1100–35), Profile/Cross and Annulets type, *BMC* viii, North 864, Romney, uncertain moneyer.

Obv. []NRI R[] (NR ligated).

Rev. +[]ROME (ME ligated).

Weight: 0.36 g (cut farthing).

New Romney, Kent. M/d find, 17 December 1998. Found by Duncan Pennock.

A new type for the Romney mint in the reign of Henry I.

(EMC 2005.0113)

M.R.A.

260. Henry I (1100–35), Cross in Quatrefoil type, *BMC* ix, North 865, Nottingham, Haudene.

Obv. +HENRI REX

Rev. +hAVD[]NE ON SNO

Weight: 1.28 g (cracked). Die axis 0°.

Sheriff Hutton, near, North Yorkshire. M/d find, 2005.

A previously unrecorded type for the moneyer.

(EMC 2005.0156)

I.P./M.R.A.

261. Henry I (1100–35), Full Face/Cross Fleury type, *BMC* x, North 866, London, Ælfwine.

Obv. +HENRICVS REX A

Rev. +ÆLFP[]ON LV

Weight: 1.20 g.

Chelmsford, near, Essex. M/d find, by 2005.

(EMC 2005.0169)

B.H./M.R.A.

262. Henry I (1100–35), Profile/Cross and Annulets type, *BMC* xii, North 868, Hastings, Wulfnoth.

Obv. +hE[]RICV[]R:

Rev. +PVLNOB[]NthAS:

Weight not recorded (slightly chipped). Die axis 270°.

Framlingham, Suffolk. M/d find, 6 February 2005. Found by T. Jones.

The moneyer has previously only been recorded in Henry I *BMC* type x (ex Beauvais hoard).

(EMC 2005.0037)

M.R.A.

263. Henry I (1100–35), Pellets in Quatrefoil type, *BMC* xiv, North 870, Canterbury, Winedi.

Obv. +h[]N[]

Rev. +[]N[]DA:ON:CANTA

Weight: 1.01 g.

Wharram Je Street, North Yorkshire. M/d find, 1997–2002. Found by Ian Postlethwaite.

(EMC 2005.0163)

M.R.A.

264. Henry I (1100–35), Pellets in Quatrefoil type, *BMC* xiv, North 870, uncertain mint and moneyer.

Obv. Inscription off flan.

Rev. []D:ON:N[]

Weight: 0.6 g (cut halfpenny, broken and fragment missing). Brasted, Kent. M/d find, October 2001. Found by Nigel Nicholson.

(EMC 2005.0135)

M.R.A.

265. Henry I (1100–35), Quatrefoil on Cross Fleury type, *BMC* xv, North 871, Canterbury?, Rodbert.

Obv. Illegible.

Rev. +R[]A:

Weight not recorded (cracked and chipped).

Milborne Port, near, Somerset. M/d find, September 2005. Found by Hugh Vincent.

(EMC 2005.0241)

M.R.A.

266. Henry I (1100–35), Quatrefoil on Cross Fleury type, *BMC* xv, North 871, uncertain mint and moneyer.

Obv. +h[]

Rev. []ON[]

Weight: 1.42 g.

Grimston, Norfolk. M/d find, 2005. Found by Adrian Reeve.

(Norfolk HER 11789; EMC 2005.0196)

A.B.M.

267. Henry I (1100–35), Quatrefoil on Cross Fleury type, *BMC* xv, North 871, uncertain mint and moneyer.

Obv. []hE[]CVS[]

Rev. []ON[]

Weight: 0.64 g (cut halfpenny, broken into two pieces).

Carlton Huthwaite, North Yorkshire. M/d find, 1997–2002. Found by Ian Postlethwaite.

(EMC 2005.0165)

M.R.A.

268. Stephen (1135–54), Cross Moline type, *BMC* i, North 873, Bury St Edmunds, Gilebert.

Obv. +STII[]NE REX:

Rev. +[]I[]ERT:ON:SA:

Weight not recorded.

King's Lynn, near, Norfolk. M/d find, June 2005.

(EMC 2005.0181)

P.M./M.R.A.

269. Stephen (1135–54), Cross Moline type, *BMC* i, North 873, Canterbury, Simon.

Obv. +STEFNE[]

Rev. +SIMVN:ON:CAN:

Weight not recorded (chipped).

Driffield, near, East Yorkshire. M/d find, by 2005.

(EMC 2005.0159)

A.G./M.R.A.

270. Stephen (1135–54), Cross Moline type, *BMC* i, North 873. Eye?, Gilbert.
Obv. []NE
Rev. +GILEB[]ON:EIE
 Weight: 1.24 g.
 Eye, Suffolk. M/d find, June 2005. Found by Alan Smith.
 (EMC 2005.0183) F.M.
271. Stephen (1135–54), Cross Moline type, *BMC* i, North 873. London, Ricard.
Obv. []NE[]
Rev. +RI[]NDE
 Weight not recorded (cut halfpenny, cracked).
 Milborne Port, near, Somerset. M/d find, September 2005.
 Found by Hugh Vincent.
 (EMC 2005.0242) M.R.A.
272. Stephen (1135–54), Cross Moline type, *BMC* i, North 874. London, Rodbert.
Obv. +ST[]NE
Rev. []RODBER[]ON:L[]
 Weight: 1.10 g. Die axis 0°.
 Suffolk. M/d find, by 2005.
 (EMC 2005.0175) B.H./M.R.A.
273. Stephen (1135–54), Cross Moline type, *BMC* i, North 873. London, uncertain moneyer.
Obv. +S[]R:
Rev. +I[]O:N:LVN
 Weight not recorded (cut halfpenny). Die axis 180°.
 Lincoln, near. M/d find, by 2005.
 (EMC 2005.0223) A.G./M.R.A.
274. Stephen (1135–54), Cross Moline type, *BMC* i, North 873, uncertain mint and moneyer
Obv. Inscription off flan.
Rev. Illegible.
 Weight: 0.29 g (cut halfpenny, chipped).
 Binnington, North Yorkshire. M/d find, 1997–2002.
 Found by Ian Postlethwaite.
 (EMC 2005.0166) M.R.A.
275. Stephen (1135–1154), Cross Moline type, *BMC* i, North 874, uncertain mint and moneyer.
Obv. []ST[]E:
Rev. []R:O[]
 Weight: 1.0 g (clipped and chipped).
 Pleshey, Essex. M/d find, 19 December 2005. Found by Michael Cuddeford.
 (EMC 2005.0288) M.R.A.
276. Stephen (1135–54), Cross Moline type, *BMC* i, uncertain mint and moneyer.
Obv. Illegible.
Rev. +S[]JT
 Weight: 0.32 g (cut farthing).
 Flixton, North Yorkshire. M/d find, 1997–2002.
 Found by Ian Postlethwaite.
 (EMC 2005.0168) M.R.A.
277. Stephen (1135–54), Profile/Cross and Piles type, *BMC* vi, North 879, Colchester, Randulf.
Obv. +STIEFNE:
Rev. +RANDVLF:ON:CO
 Weight: 1.32 g.
 Kent. M/d find, by 2005.
 (EMC 2005.0286) B.H./M.R.A.
278. Stephen (1135–54), Awbridge type, *BMC* vii, North 881, Norwich, Thor.
Obv. +STIEFNE:
Rev. [+T]HOR:ON:NORVI:
 Weight: 1.38 g.
 Tharston, Norfolk. M/d find, January 2005. Found by A. Womack.
 M. Allen, 'The English coinage of 1153/4–1158', in this volume, no. 190.
 (EMC 2005.0157) A.B.M./M.R.A.
279. Stephen (1135–54), Awbridge type, *BMC* vii, North 881, Lincoln, uncertain moneyer (Gladwine?).
Obv. +S[]
Rev. +G[]N[]ON:LINC: (NC ligated).
 1.34 g (chipped). Die axis 0°.
 Thormamby, North Yorkshire. M/d find, 23 April 2006.
 Found by Michael Smith.
 Allen, 'The English coinage', Postscript.
 (EMC 2006.0204) M.R.A./M.S.
280. Stephen (1135–54), irregular copy of Awbridge type, *BMC* vii, North 881, sceptre r.
Obv. +M[EINN]:R[IN:]
Rev. [+I][]NII.D[]II.L:
 Weight: 1.40 g. Die axis 90°.
 Docking, Norfolk. M/d find, November 2005.
 Allen no. 377.
 (EMC 2005.0249) P.M./M.R.A.
281. David I of Scotland (1124–53), Scottish border type as Stephen *BMC* i, North 909, Carlisle. Hudard.
Obv. [STIEFN]E RE:+
Rev. []D[]DARD:ON[]
 Weight not recorded.
 Barnby Moor, East Yorkshire. M/d find, 29 April 2005.
 Found by Richard Last.
 From the same obverse die as coins of the Carlisle moneyers Hudard and Erebald, the latter from an Edinburgh reverse die (I. Stewart, 'Scottish Mints', in *Mints, Dies and Currency*, ed. R.A.G. Carson (London, 1971), 165–289, at pp. 194, 276, pl. XV, nos 1a–1b).
 (EMC 2005.0142) M.R.A.
282. Henry (of Anjou?), North 940/2, uncertain mint and moneyer.
Obv. Illegible.
Rev. [][Æ?][]ON[]
 Weight: 0.88 g (chipped).
 Uncertain findspot. M/d find, by 2004.
 (EMC 2005.0003) R.A.A.
283. Henry II (1154–89), Cross-and-Crosslets (Tealby) type, class A2, North 952/2, Lincoln, Lanfram.
Obv. []HENRI RE[]
Rev. +L[]NF[]INC:
 Weight not recorded.
 Long Stratton, Norfolk. M/d find, August 2005. Found by A. Kedge.
 (Norfolk HER 14106; EMC 2005.0207) A.B.M.
284. Henry II (1154–89), Cross-and-Crosslets (Tealby) type, class A or B, North 952–5, London, Swetman.
Obv. []RI REX ANG[]
Rev. []TMÆ[]O[]
 Weight: 0.66 g (cut halfpenny).
 Brockley, North Somerset. M/d find, March 2005. Found by Jon Hill.
 (EMC 2005.0140) M.R.A.

285. Henry II (1154–89), Cross-and-Crosslets (Tealby) type, class C2, North 957, Bury St Edmunds, Henri.
Obv. [] EN[] JE
Rev. HENRI[]
 Weight not recorded.
 Thornham, Norfolk. M/d find, 2004. Found by Jon Adkin.
 (EMC 2005.0176) M.R.A.
286. Henry II (1154–89), Cross-and-Crosslets (Tealby) type, class C2, North 957, Canterbury, Ricard.
Obv. HENRI[]
Rev. [] RICARD[] ON[]
 Weight: 1.37 g.
 Norfolk. M/d find, by 2005.
 (EMC 2005.0115) B.H./M.R.A.
287. Henry II (1154–89), Cross-and-Crosslets (Tealby) type, class C2, North 957, uncertain mint (Carlisle or Newcastle), Willelm.
Obv. [] RI[] RE[]
Rev. +[] EL[]
 Weight: 1.01 g.
 Great Shelford, Cambridgeshire. M/d find, 25 April 2005.
 Found by Stephen Fordham.
 Same *obv.* die as BMC 591–2.
 (EMC 2005.0233) M.R.A.
288. Henry II (1154–89), Cross-and-Crosslets (Tealby) type, class C?, North 956–7, uncertain mint, Turstein.
Obv. HENRI[] JE[]
Rev. [] TAIN[] O[]
 Weight: 1.36 g.
 Kenninghall, Norfolk. M/d find, by 2005. Found by Ed Crick.
 (EMC 2005.0139) A.B.M.
289. Henry II (1154–89), Cross-and-Crosslets (Tealby) type, class C-F, North 956–61, uncertain mint and moneyer.
Obv. H[]
Rev. [] A[] ON[]
 Weight: 0.5 g (cut halfpenny).
 West Malling, Kent. M/d find, September 1998. Found by Nigel Nicholson.
 (EMC 2005.0136) M.R.A.
290. Henry II (1154–89), Cross-and-Crosslets (Tealby) type, class F, North 961, Canterbury, Rogier.
Obv. [] NRICV[]
Rev. +ROGIE[] JNT
 Weight not recorded.
 Portsmouth, near. M/d find, 13 February 2005. Found by Robert Chamberlain.
 (EMC 2005.0045) M.R.A.
291. Henry II (1154–89), Cross-and-Crosslets (Tealby) type, class F, North 961, Ipswich, uncertain moneyer.
Obv. H[]
Rev. [] ON[] GI[]
 Weight: 1.2 g.
 West Malling, Kent. M/d find, September 2002. Found by Nigel Nicholson.
 (EMC 2005.0138) M.R.A.
292. Henry II (1154–89), Cross-and-Crosslets (Tealby) type, class F, North 961, uncertain mint (Carlisle or Newcastle), Willelm.
Obv. [] RI[] EX[]
Rev. +W[] EI[]
 Weight: 0.6 g (cut halfpenny). Die axis 120°.
 Hampton Poyle, Oxfordshire. M/d find, 2005. Found by Adrian Oates.
 (EMC 2005.0162) M.R.A.
293. Edward I (1272–1307), groat, London, North, SCBI 39, var. a, North 1007.
Obv. EDWARDVS:D:IGRA:REX:ANGL:●
Rev. DN'S / hNBN' / EDVX / AQVT (NB ligated), LON / DON / IΛ C / IV1 in inner circle.
 Copdock, Suffolk. M/d find, 23 October 2005. Found by Tim Jackson.
 Weight: 5.03 g (chipped).
 Allen, BNJ 74 (2004), dies a7/r5. M.R.A.
294. Edward III (1327–77), double leopard or double florin, London, North 1105.
Obv. EDWR:D:GRA:REX:ANGL:Z:FRANC:DNS:hIB
Rev. +hIC:TRANSIGNS:PER:ME:DIVM:ILLORVM:IBAT:
 Southern England. M/d find, February 2006.
 Weight: 6.99 g.
 Spink auction 29 June 2006, lot 301. The third known specimen of the double leopard (the other two, found in the River Tyne in 1857, are now in the British Museum).
 J.C./M.R.A.
295. Edward III (1327–77), half noble, London, Third Coinage, Second Issue, North -.
Obv. EDWARD:D:GRA:REX:ANGL:Z:FRANC:DNS:hIB
Rev. +DOMING:TE:IN:FVRORE:TVO:ARGVAS:ME
 Salisbury, near, Wiltshire. M/d find, 2006.
 Weight: 4.41 g.
 Dix Noonan Webb auction, 28 September 2006. The second recorded half noble of this issue. The first example appeared on the market without find provenance in 1997 (SCBI 57, 1A).
 M.S./M.R.A.
296. Edward III (1327–77), quarter noble, London, Pre-Treaty Series G1, North 1191.
Obv. EDWARD:D:GRA:REX:ANGL:Z:FRANC:DNS:hIB
Rev. +EXALTABITVR:IN:GLORIA
 Godmanchester, Cambridgeshire. M/d find, October 2005.
 Found by Richard Ashford.
 Weight: 1.88 g.
 M.R.A.
297. Edward III (1327–77), half noble, London, Treaty B, North 1239.
Obv. EDWARD:D:GRA:REX:ANGL:D:hIB
Rev. +DOMING:TE:IN:FVRORE:TVO:ARGVAS:ME
 Hartlebury, near, Worcestershire. M/d find, 27 January 2006. Found by Wayne Mexsom.
 Weight: 3.79 g.
 D.K./M.R.A.
298. Edward III (1327–77), quarter noble, London, Treaty B, North 1244.
Obv. EDWARD:D:GRA:REX:ANGL
Rev. +EXALTABITVR:IN:GLORIA
 Walvesey, Cambridgeshire. M/d find, 2005. Found by Jerry Webb.
 Weight: 1.85 g.
 M.R.A.
299. Richard II (1377–99), plated (gilt on silver) counterfeited of half noble, London, Webb Ware type 2.
Obv. RICARD:D:GRA:REX:ANGL:D:hIB

Rev. DOMINE:NE:IN:FVRORE:TVO:ARGV[]

Abridge, Essex. M/d find. April 2005. Found by Lee Hodges.

Weight: 2.81 g (chipped).

Published in *The Searcher*, May 2006, 35, and acquired by the Fitzwilliam Museum.

M.R.A.

300. Edward IV, second reign (1471–83), angel, London, Blunt and Whitton type XIV, North 1626.

Obv. EDWARD DEI GRA REX ANGL' & FRANCI

Rev. PER CRVSEM TVA SALVA NOS XPC REDITOR

Swindon area, Wiltshire. M/d find, 2005.

Weight: 5.07 g

C.M./M.R.A.

301. Charles I (1625–49), half crown, York, Besly 1D.

Weight: 12.68 g (worn).

St Athan, Vale of Glamorgan. Chance find in garden, January 2005, by R. Gifford.

The irregular shape is typical of the 'early' York halfcrowns. The low weight probably results from a combination of wear and poor production control, rather than clipping. A late seventeenth-century, rather than Civil-War, loss.

E.M.B.

302. Charles I (1625–49), groat, Oxford, 1644, North 2462.

Weight: 1.94 g.

Penmaen, Gower. M/d find, August 2005. Found by Tony Barry.

The smaller denominations of the royalist issues are generally scarce as finds. This joins a WA/SA threepence (Coin Register 1988, no. 252) and an Exeter groat (Coin Register 1999, no. 144) recorded from South Wales in recent years.

E.M.B.

Seventeenth-Century Token

303. Newent, Gloucestershire, halfpenny token of Thomas Master, 1668; BW –; Norweb –; Dickinson –.

Obv. THO[]ASTER: HIS / HAL[] / PE[]

Rev. OF NEWEN[] 1668; M / T S

Weight: 0.69 g (incomplete).

Newent, Gloucestershire. M/d find, May 2005. Found by Phil Smith.

Unpublished? Cf. BW Gloucs 133/Norweb 1699, farthing of Thomas Master, M / T S, 1653: innkeeper, the Dolphin?

E.M.B.

Continental Coins

304. Germany, Otto III (983–1002), silver denier, Cologne. Havernick 34.

Obv. illegible.

Rev. []T[]ONI[]

Weight: 1.50 g.

Ardleigh, Essex. M/d find, by 2005. Found by Russell Smith.

(PAS ESS-A66486; EMC 2005.0209)

C.A.M./P.I.

305. Germany, Otto III (983–1002), silver denier, Otto-Adelheid type, Hatz group V?

Obv. A[]

Rev. []E[]

Weight not recorded.

Nottingham. M/d find, by 2005.

(EMC 2005.0171)

B.H./P.I.

306. Germany, Otto IV (1198–1215), silver pfennig, Dortmund.

Obv. OTTO IN[]PRATOR

Rev. []TREOR[]ONIA REG[]IA

Settrington, North Yorkshire. M/d find, by 2005.

Weight: 0.81 g.

I.H./M.A.S.B.

307. Portugal, Afonso V (1438–81), silver meio real, or *chinfão*, Lisbon.

Weight not recorded (fragmentary).

Parc Seymour, Newport. M/d find, July 2005. Found by Phil Smith (not illustrated).

Apparently the first *chinfão* recorded from Wales, though these are familiar finds in England.

E.M.B.

308. Portugal, Afonso V (1438–81), billon *real branco*, Lisbon?, cf. C. M. Almeida do Amaral, *Catalogo Descritivo das moedas Portuguesas* (Lisbon, 1977), 1016ff.

Weight: 1.44 g (heavily worn).

Wrinstone, Vale of Glamorgan. M/d find, October 2005. Found by Gwyn Rees (not illustrated).

E.M.B.

309. France, Louis XI (1461–83), écu d'or à la couronne, Lafaurie 524 (1461–75).

Obv. LVDOVICVS DEI GRACIA FRANCO[], crowned shield of France modern, to either side a crowned lis.

Rev. X[]PS V[]INCIT XPS REGNAT XPS IMPERAT

Sheffield. M/d find, 2005.

Weight not recorded (chipped).

C.M./M.R.A.

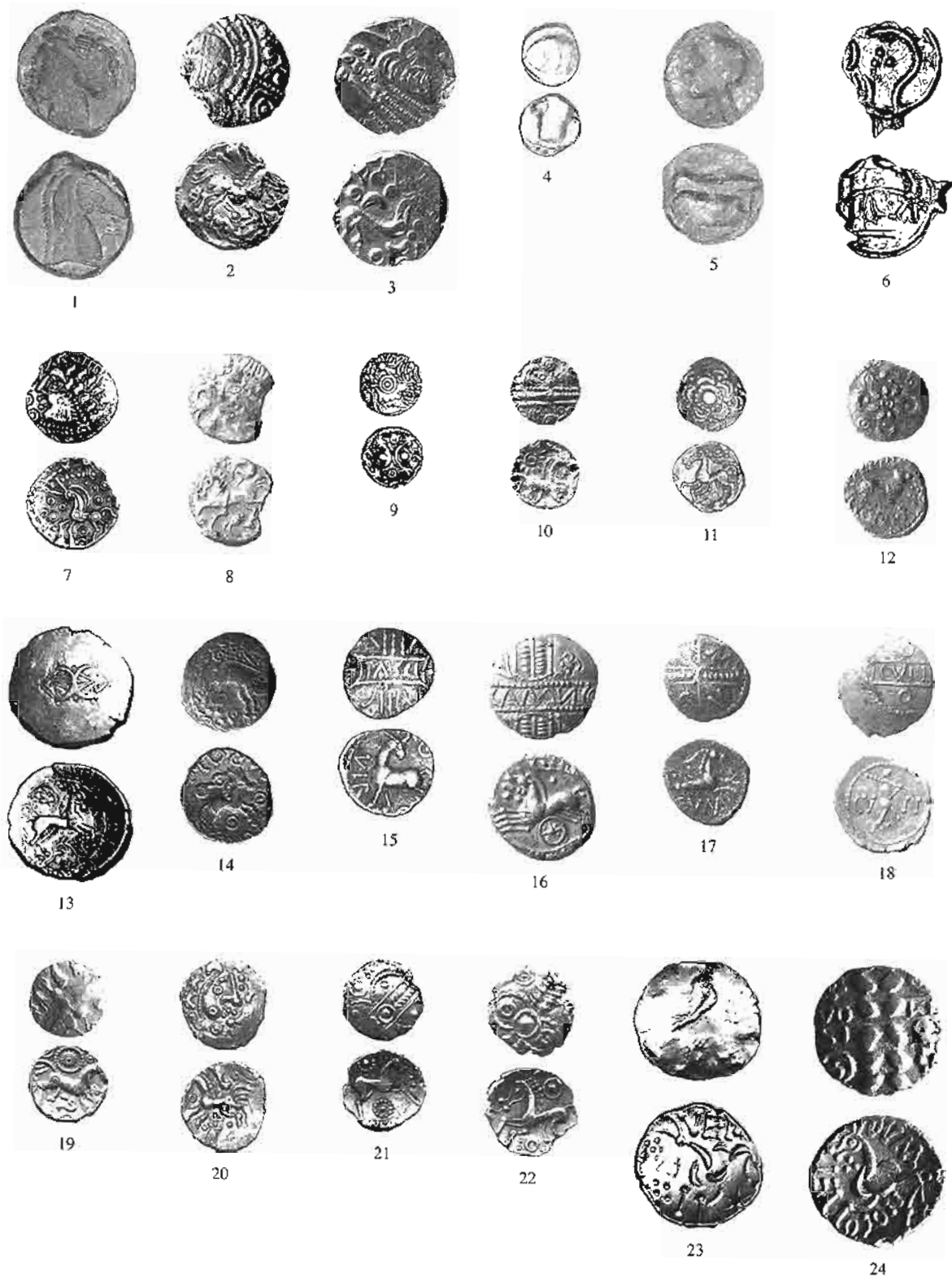
310. Spain, Philip II (1556–98), copper 8 maravedis.

Cheshire. M/d find, by 2005.

Weight not recorded.

Revalued twice by countermarking under Philip IV (1621–65): to 12 maravedis in 1636 (countermark XII); and to 8 maravedis in 1641 (countermark VIII). A round countermark in the centre is probably the date, 1641.

A.C./T.V.B.





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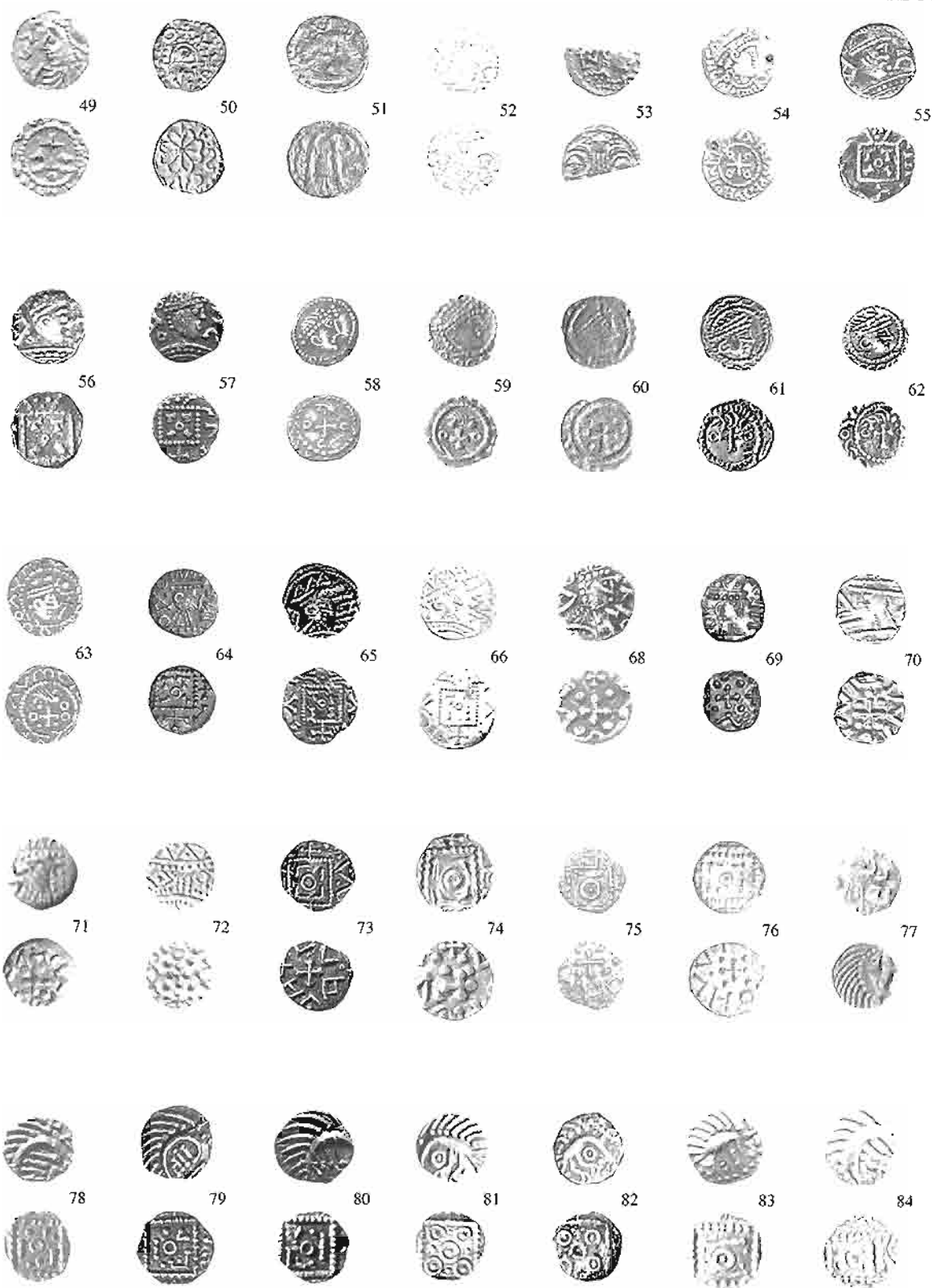


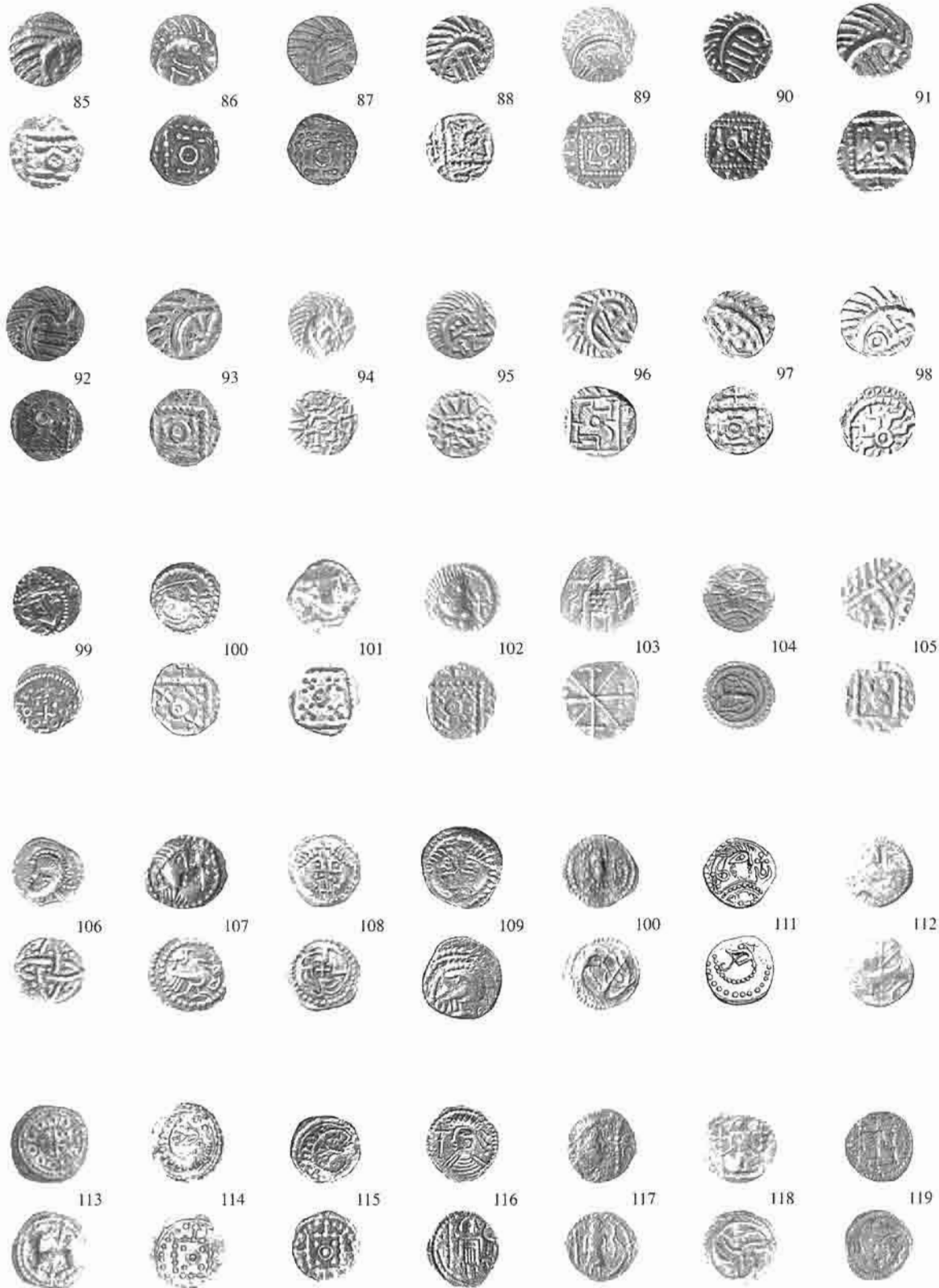
47

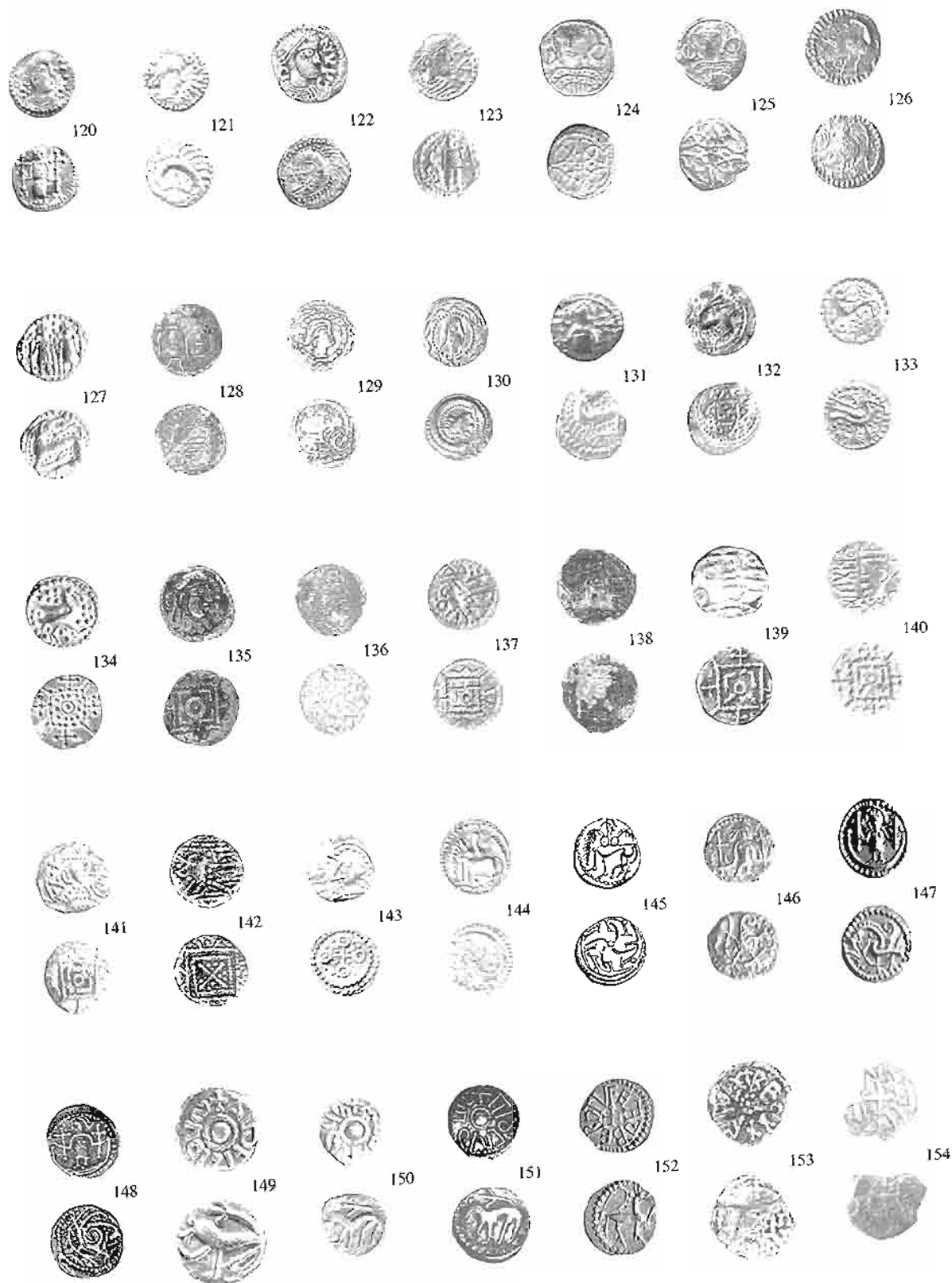


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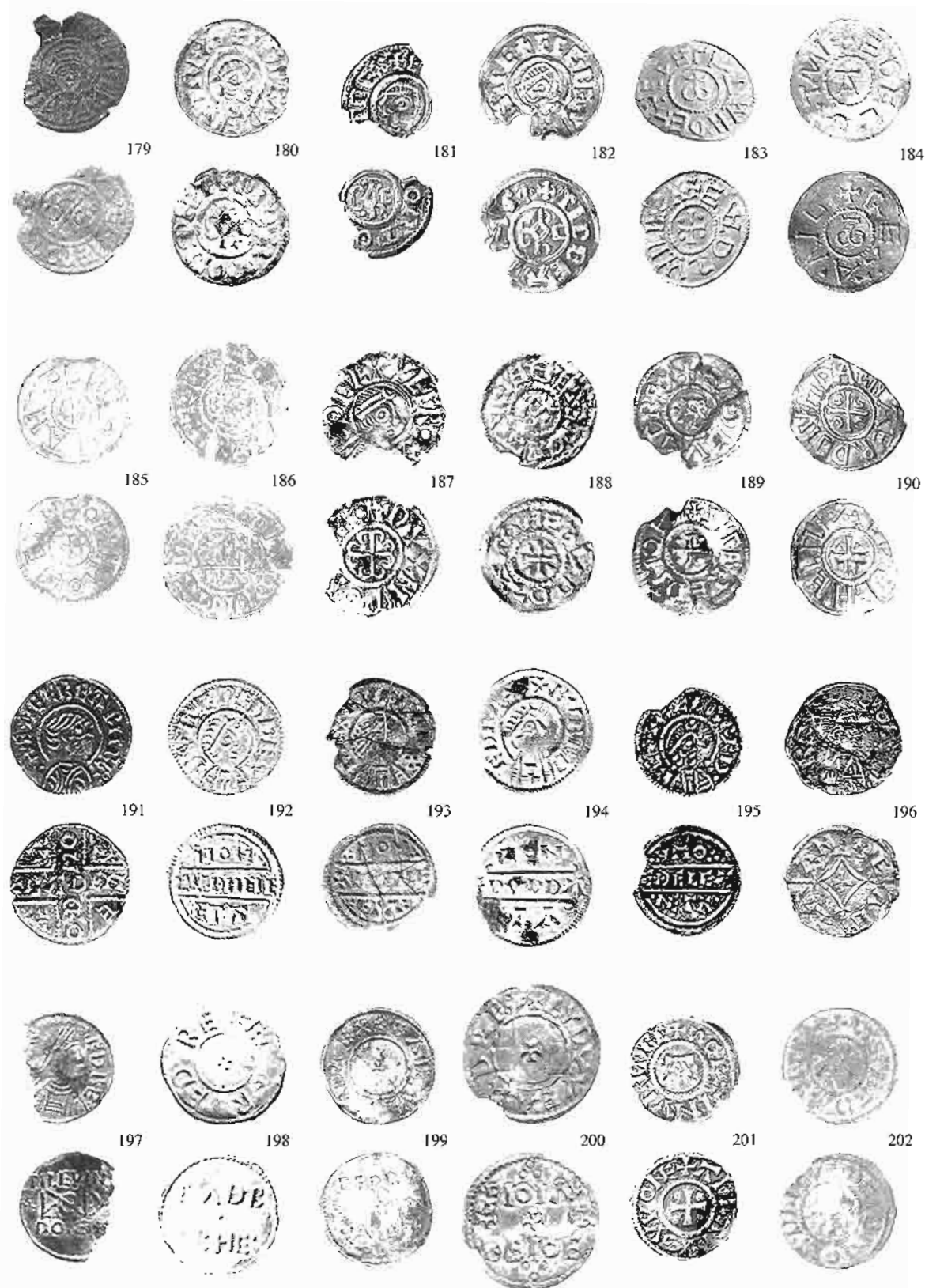


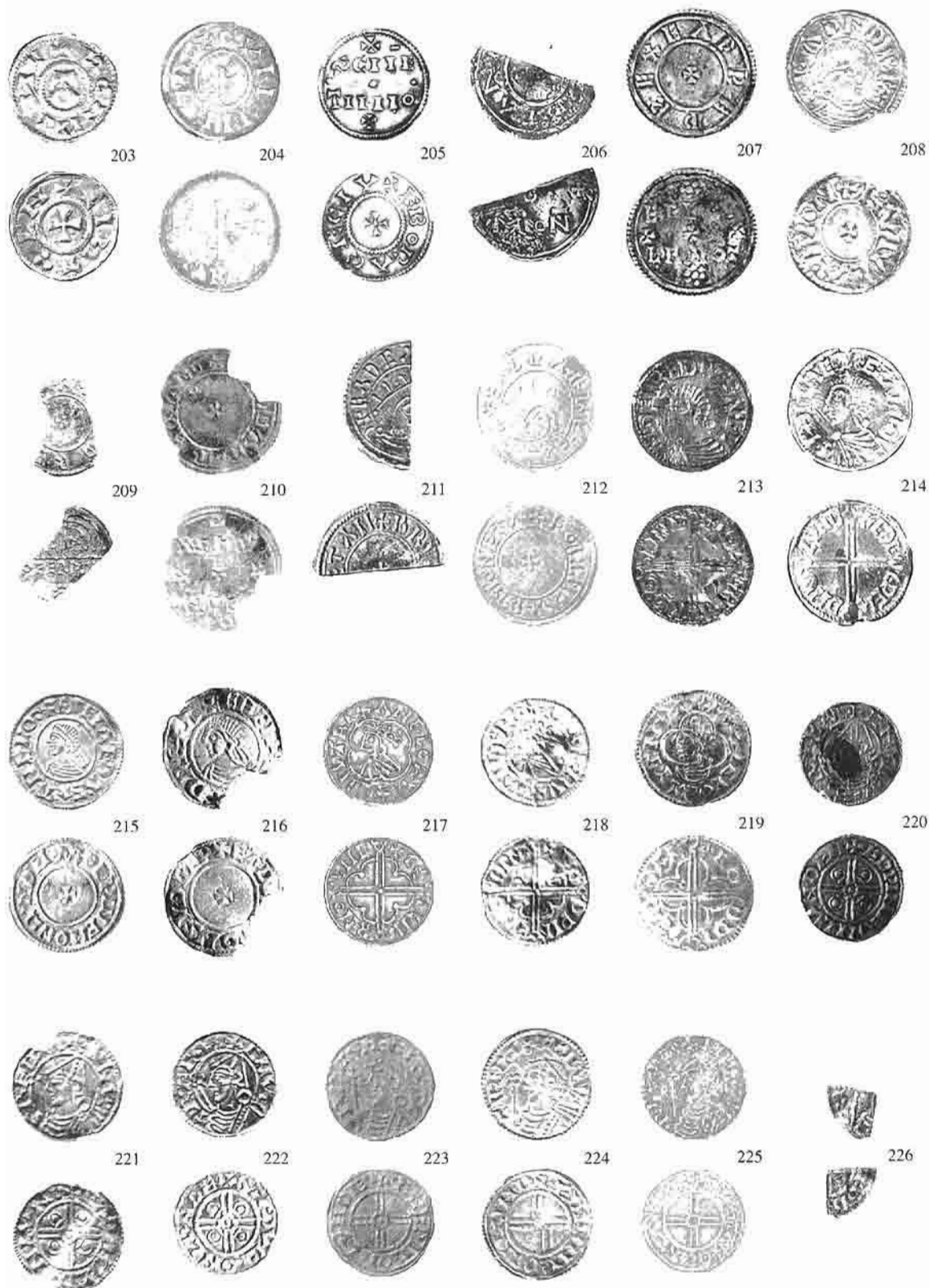
177

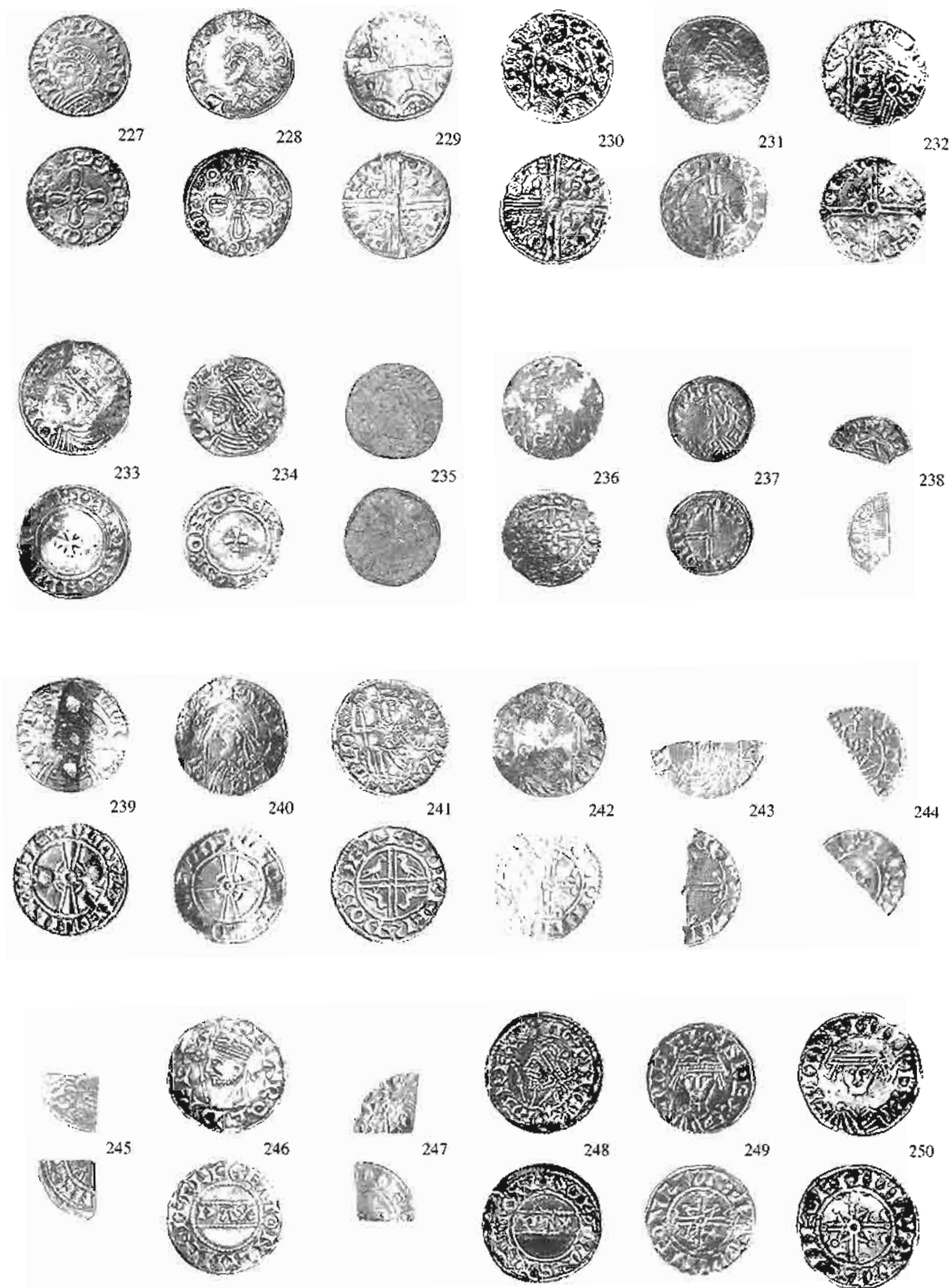


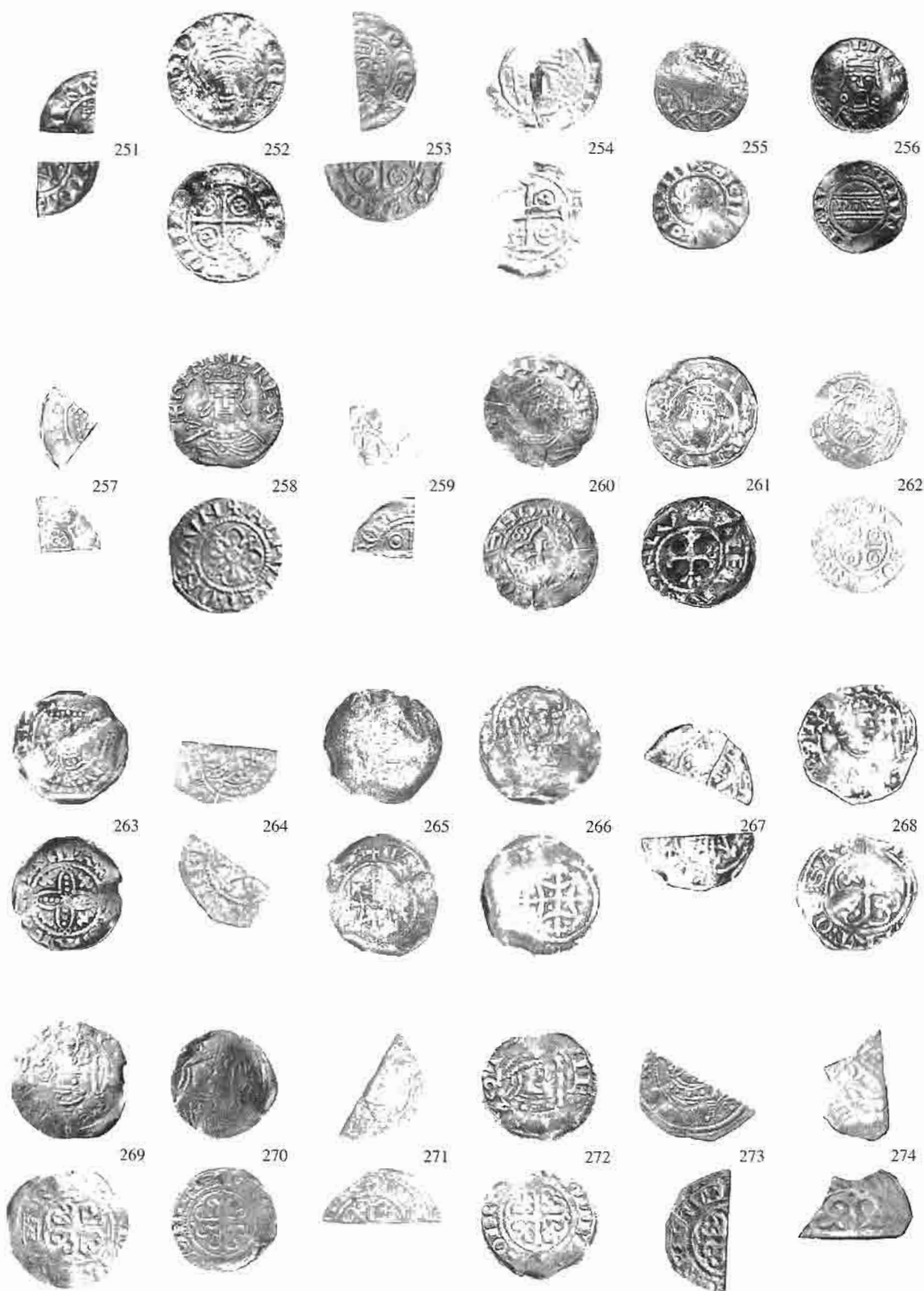
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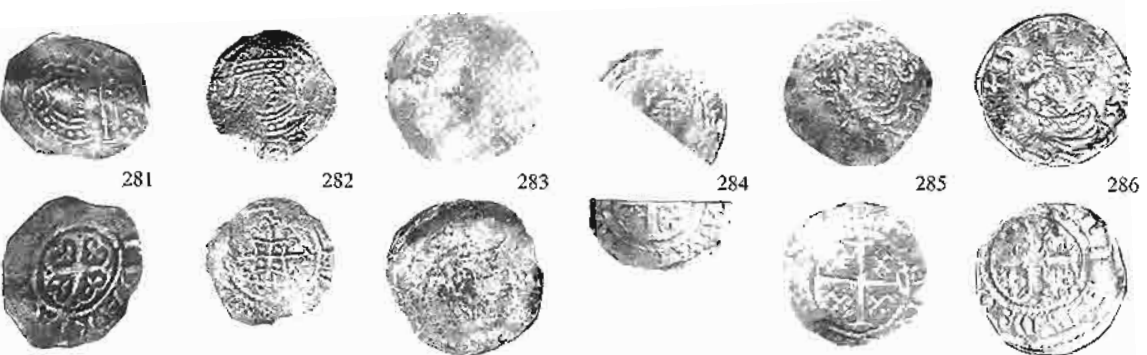


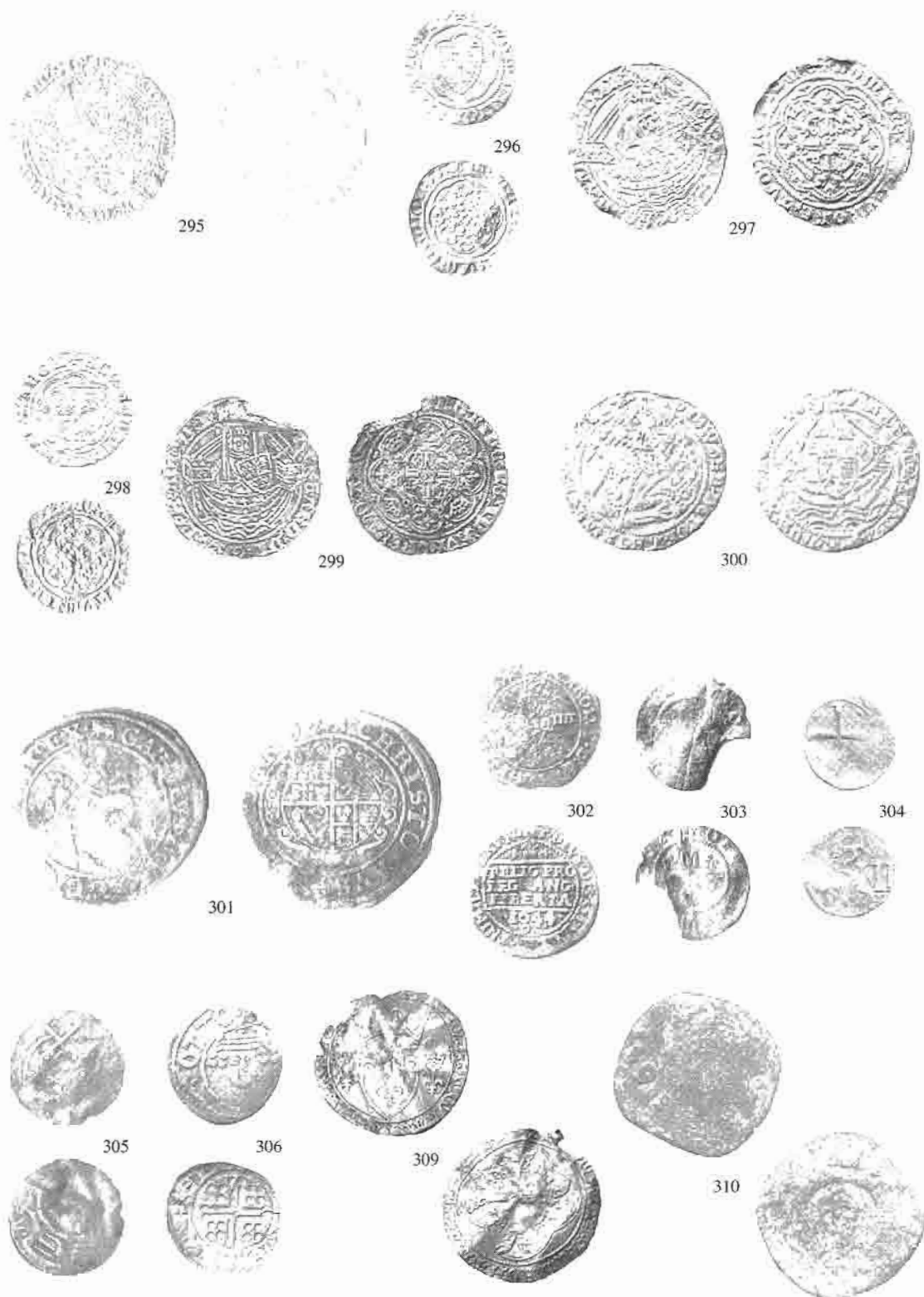












REVIEWS

The Sedgeford Hoard, by Megan Dennis and Neil Faulkner (Stroud, Tempus, 2005), 96 pp, 26 colour plates, 46 figs.

Of three hundred or more Iron Age coin hoards found in Britain, fewer than a dozen have been recovered in the course of archaeological excavation. The Sedgeford hoard is one such find, and in this short and stimulating account, the authors and their colleagues have extracted the maximum possible amount of information from the rare opportunity afforded by discovery in such controlled circumstances.

Ironically – and in common with the great majority of recent discoveries – the location of the hoard was identified with the use of a metal detector. In this case, however, it was being wielded by Kev Woodward, a volunteer working for the Sedgeford Historical and Archaeological Research Project (SHARP). Since the mid-1990s, SHARP has been investigating this parish in north-west Norfolk, just a few kilometres from the extraordinary Iron Age site at Snettisham. On 12 August 2003, Mr Woodward detected a signal in the Boneyard area of the site, which had not been fully excavated; it was being checked over for metal finds, which would need to be removed before the end of the excavation season, in case of interference by illicit metal detecting over the coming winter. As it transpired, the signal came both from coins loose in the spoil, and from a cow bone, which turned out to contain twenty Gallo-Belgic E staters.

The excitement of this unexpected discovery is well conveyed: quotes from most of those involved are interspersed throughout the text. These comments form part of what the authors describe as 'SHARP's democratic philosophy' (p. 19), which among other things enabled the finder of the hoard to continue its excavation in the laboratory. This raises some fascinating archaeological questions: those of us who direct or supervise excavations know that not all diggers are equal, and I wonder if SHARP would have been quite so democratic if the finder of the hoard had been one of the less skilful diggers? Much is made of the (to my mind entirely correct) decision to excavate the cow bone locally, but it is acknowledged (p. 87) that this was possible in part because the coins were well-preserved and their excavation was unlikely to present enormous difficulty. Had it been a fragmentary silver-gilt helmet full of a corroded mass of coinage – such as one of the recently discovered East Leicestershire hoards, which also included some community involvement – then SHARP's democratic philosophy might have been more severely tested.

The excavation of the cow bone is described in great detail. There are many excellent photographs and a diagram (p. 36) which I believe is the first time that the relative positions of Iron Age coins within a British hoard have ever been so carefully recorded. That the

diagram of how the coins were placed in the bone does not on the face of it add much to our understanding of the hoard is not important; next time it might be, and it is encouraging to see this recorded with the maximum possible detail.

Following the removal of the bone itself it was clearly essential to excavate the area in which it was found, and this process is described in detail (pp. 41–7). The plan on p. 46 illustrates just how narrowly the hoard escaped discovery in the millennium following its burial: the hoard pit is partially cut by at least four Saxon features, including a burial just centimetres away. Indeed there clearly had been some disturbance in the Saxon period or later, since a further nineteen staters were found in this general area, bringing the provisional total for the hoard to 39 coins. Others may have been removed prior to SHARP's investigations. The position of the hoard itself may have been marked by a cow pelvis, which lay above the upper front leg bone containing the coins.

The coins themselves are discussed in some detail (pp. 28–31), and it is heartening to see this rather recondite information brought to life for a non-specialist audience. The detail can occasionally be questioned: I am not entirely convinced that the charioteer's arms have been transformed into a torc (p. 29), and more significantly, 1112 does not die-link to 1116, nor 451 to 1106 (*contra* p. 32). 1087 might die-link to 1113, but 1113 has been omitted from the otherwise excellent illustrations in favour of two copies of 1114 (figs 24, 28). Obverse and reverse have been confused in the captions to figs 22, 23 and 26. These errors perhaps betray some hurry in the production of the book, which remarkably appeared only two years after the cow bone itself.

Following the detailed discussion of the coins and the site, Sedgeford is placed in its British and continental context. A chapter on 'Interpretations' again makes much use of quotes from various interested parties, ranging from eminent professors (p. 70) to eight year old Harriet Mackie, 'SHARP volunteer' (p. 73). Harriet (who is nine on p. 16) also contributes an illustration in a style which perhaps inspired one of the authors to draw cartoon strip interpretations of alternative explanations for the burial of the hoard, either ritual (p. 76) or security (p. 78).

These features evidently provide some fairly novel approaches to hoard publication, but this is no bad thing. Clearly it will not work in every case, but here – where the democratic ethos behind SHARP is an integral part of the story – it seems entirely appropriate. The authors deserve to be congratulated on combining traditional and rather dry numismatic detail with the very human story behind the discovery and interpretation of the hoard; in this they have succeeded exceptionally well, producing a book which will be of great interest to specialist and non-specialist alike.

PHILIP DE JERSEY

The tribes and coins of Celtic Britain, by R. Pudill and C. Eyre (Witham, Greenlight Publishing, 2005). 82 pp., 143 figs.

CELTIC numismatic scholarship has arguably gone through a particularly productive phase during the past twenty years. At its root is the huge increase in recorded finds, mostly made by metal detectorists, which has given a generation of researchers unprecedented quantities of data to analyse. The minutiae of typological studies are only part of the picture, however, and there is just as pressing a need for more general accounts which stand back from this detail, to present a broader picture of numismatic developments in the late Iron Age.

The tribes and coins of Celtic Britain, by Rainer Pudill and (translated by) Clive Eyre, sets out to do just that, but in a curiously erratic style and with only a limited degree of success. The book begins with a short introduction to the Celts, followed by a few pages on the Celtic pantheon. General background information is often outdated: we are still in a world of waves of Celtic immigrants to Britain (pp. 6, 24, 73), while the Arvernian hegemony still holds sway in Gaul (p. 15). Some of the more detailed numismatic information is also soundly out of date: Gallo-Belgic E is given as c.60–30 BC (fig. 17), but for more than thirty years now this type has been unequivocally associated with the Gallic War. Elsewhere theories which are debatable, to say the least, are presented as fact. It is said that 'iron was easy to work' compared to bronze (p. 6); and from their mercenary service in the Mediterranean, 'the Celts learned the advantages of a cash economy' (pp. 14–15), while 'the old system of trade, based upon barter ... lasted [in Britain] until the second half of the 1st century BC' (p. 16). But barter must have continued alongside specialized uses of coinage throughout the late Iron Age in Britain, to say nothing of the larger area of the country which never used coinage.

Short chapters follow on iron currency bars and ring money, objects which repeatedly crop up in accounts of Celtic coinage despite the fact that they are arguably not 'Celtic' and not coinage. An account of Caesar's expeditions to Britain is then followed by the longest section of the book, entitled 'The Celtic tribes of Britain and early Celtic coinage'. One might expect that being described as 'early', this would cover just the first twenty or thirty years after the Gallic War, but for the Durotriges, Dobunni, Corieltauvi and Icenii, the whole of their numismatic development up to the Roman conquest is presented very briefly. The section on the Durotriges (pp. 28–9) is riddled with errors: they are said to have 'preferred to strike in silver', which suggests a degree of choice in the matter which perhaps they did not enjoy; their billon coinage is incorrectly described as a copper-zinc alloy; the cast bronzes did not circulate from about 40 BC, but are probably first century AD in date; nor did they circulate throughout the tribal lands of the Durotriges, but are confined to within a few kilometres of Hengistbury Head. The 'invariable' design of the cast bronzes is far from invariable, and indeed the illustration supplied alongside is different from the design described in the text.

The author is clearly rather happier discussing the coins of the kingdoms north and south of the Thames, which takes up much of the rest of the book, but here too

there are problems. Addedomarus, to judge by the distribution of his coins, ruled in the Hertfordshire region, not in Essex (p. 36). Tasciovanus is said to have used the RICON legend on his staters 'to show an unwelcoming attitude to [Rome's] growing influence in Celtic Britain' (p. 36), but even leaving aside the debatable nature of this assertion, there is no discussion of the implications of his adoption of classical motifs on silver and bronze coinage of the same date. The bald statement that 'the building housing Cunobelin's mint ... has been discovered and excavated in Colchester' deserves at least some qualification acknowledging the limits of archaeological interpretation. Figure 114 is silver, not bronze; fig. 115 appears to be a (modern?) fantasy piece and to say that 'the only possible interpretation' of its supposed findspot on the Hungarian/Serbian border is that 'the coin found its way there along a trade route from Britain' (p. 52) is extraordinary.

The concluding chapters, describing the conquest of Britain and its aftermath, are largely drawn from classical texts, and the impression given is that the author is more confident in his treatment of this material than in the numismatic content. Almost half of the suggested reading list consists of general works on the Celts in German, and it would surely have been more useful for the readership of the translated text to provide references to recent scholarly work in English. In short, the book represents an opportunity missed: the pace of Celtic numismatic scholarship is such that we need accessible general accounts every few years, which assess recent developments in the subject, but sadly this effort simply does not stand up to detailed scrutiny.

PHILIP DE JERSEY

The Late Roman Gold and Silver Coins from the Hoxne Treasure, by P.S.W. Guest (London, The British Museum Press, 2005), 160 pp., 26 pls.

THE publication of the coins from the Hoxne treasure is a major event in the advancement of the study of Roman coinage in precious metals of the later fourth and early fifth centuries AD, both in Roman Britain and the empire in the West. With a total of 15,234 coins, of which 580 are gold, 14,716 are silver and 24 are bronze, Hoxne is the largest hoard from this period in Britain and consequently offers an unparalleled body of material with which to confront many of the most interesting and important problems of later Roman numismatics.

In addition to the coins, the treasure also included 129 pieces of gold jewellery and silver tableware consisting mainly of small items including bowls, ladles, spoons, wine strainers, and pepper pots. The decision to publish the coins separately from the jewellery and plate was a sensible one since the two specialist areas involve somewhat different methodologies and modes of analysis. Nonetheless, to the author's credit, a brief summary of the jewellery and silver objects has been included and their significance briefly assessed in the context of the treasure as a whole.

The strongest sections in this volume are those that deal directly with the material and Guest has concentrated on the classification, metrology, and fineness of the coins, the clipping of silver coins, and the production of contemporary imitations linking them to the general

development and function of the coinage in the late fourth and early fifth centuries. Unfortunately, there is neither time nor space in this review for a detailed analysis of the author's discussion of the development of the *siliqua* in the later fourth century or the criteria on which he bases his mint attributions. However, both his methodology and his arguments are sound and he has made a significant contribution to our understanding of the sequence of issues at the western and central mints and their chronology.

The remainder of the book is concentrated on setting Hoxne into the context in which the coins were produced, came to be hoarded, and the date of their deposition. Here the author is on less firm ground. Guest approaches these questions from the standpoint of a late-Roman numismatist, which leads him to focus on the role of gold and silver in the Later Roman Empire within the administrative structure which produced it, and the social norms that dictated its recipients and the mode of its distribution. In this area his discussion would have been stronger had he consulted more widely the recent works on imperial mints, treasury officials, fiscal policies etc.¹

Ultimately, interpreting the evidence provided by the late fourth and fifth century Roman hoards from Britain must define the extent to which Britain operated within a monetary economy. To do this, the focus must be on finding solutions to the problems of why so many hoards with coins of the late fourth and early fifth centuries have been recovered in Britain, when and why silver coins were clipped, who received them, and the extent to which both the hoarding and clipping are post-Roman events.

In his metrological discussion of the gold coins from Hoxne, Guest has been able to show that the individual weights of the 540 *solidi* (minted at 72 to a Roman pound equal to 322.6 g) produced between AD 388 and AD 408 deviated less than 0.10 g from their theoretical value of 4.48 g. He argues that the total weight of the *solidi* from Hoxne is just over eight Roman pounds, but this close correspondence between the number of coins and a round number of pounds is based on his choice of a standard of 322.6 g which is not universally adopted. However, there is no doubt that the weights of the gold coins were carefully regulated, which suggests that the Hoxne *solidi* either were uncirculated or were selected for their high weights. Although it is clear that the *solidi* could have circulated by tale, Guest argues that they circulated by weight which is plausible in terms of the evidence, but does not rule out the first possibility.

By contrast the silver coins from Hoxne not only have weight averages significantly lower than the standards to which they are supposed to have been minted, but the high incidence of clipped pieces from the find (10% of the 60 light *miliarenses*, 98% of the *siliquae*, and four (80%) of the five half-*siliquae*) make it difficult to determine precisely what standards were in use, particularly for the *siliquae*. Guest has attempted on the basis of the 212 unclipped *siliquae* in the hoard to reconstruct the weight standards for four groups of coins, totalling 119, from three mints (Arles, Trier, and Milan between AD 360 and 402). None of the groups have more than 48 coins and two have less than 25 and in consequence the evidence base is too small to provide statistically reliable results.

Nonetheless, the weights as set out in diagrammatic form (p. 94) give a somewhat different picture from the table giving the simple averages. Between AD 360 and AD 388 the coins seem to cluster between 1.8 g and 2.0 g, although there is more dispersion at Trier between AD 383 and AD 388. At Milan between AD 395 and AD 402, no clear weight peak is discernible on the diagram, which must result from the overlap of two separate standards. Guest, however, states that the Milan coins were c.20% lighter than the earlier pieces from Arles and Trier and that the weight dispersion is caused by the failure to adhere strictly to a given standard.

These metrological difficulties are compounded when dealing with the clipped *siliquae*. Guest divides them into four groups (p. 111) according to the degree of severity with which they were clipped and notes that the majority fall into his group two. He also produces a figure recording the average weights of clipped pieces for the nine major chronological periods between AD 355 and AD 408, seven of which lie between 1.28 g and 1.42 g (p. 112). This is a surprisingly narrow weight distribution for a large number of coins subjected to a high degree of variation in the amount to which they were clipped, even taking into account the oversimplification that the average values represent.

Guest's explanation for this phenomenon is based on a figure (p. 114) demonstrating that the average weights of the unclipped and clipped *siliquae* from Hoxne show a correlated weight decline between AD 355 and AD 402 (the clipped pieces being 25% to 35% lighter), although similar proportions of lightly and heavily clipped specimens occur in all of the chronological periods. In his view this rules out their being clipped to a specific weight standard. Consequently, since the *siliquae* were not clipped to a specific standard, they were reduced in size in order to provide silver for the manufacture of other silver objects rather than melting down whole coins, which would have reduced the number of *siliquae* available to circulate.

The analysis of the silver contents of 132 Hoxne coins (including 102 genuine *siliquae*, four half-*siliquae*, 21 unofficial imitations, and five plated forgeries) supports his view that the clippings from genuine coins could have provided the raw material for the imitations. The fineness of genuine *siliquae* was extremely high immediately after the reform of AD 368 at the western mints, with most values above 98% silver. From AD 388 silver values at the western mints and Milan declined slightly, but noticeably, to about 94% to 96%. The copies (including the silver foils on the two types of plated coins) are of equivalent high finenesses.

On the basis of the presence of the very rare *siliquae* of Constantine III in the Hoxne treasure and the preponderance of Milan *siliquae* minted between AD 395 and AD 402 over the earlier issues from Trier, Guest argues that Hoxne was deposited at some point after AD 407 to AD 408. He also postulates that the increasing predominance of Milan coins of AD 395 to AD 402 suggests that as many as a third of the fifth century British hoards were buried after 408. A question then arises as to how long after 408 these finds were buried, which Guest cautiously leaves unresolved.

¹ For example, Delmaire 1989; Hendy 1989; King 1980; Johansen 1994; Burgess 1988.

In his view the clipping of siliquae began after large-scale shipments of silver to Britain had ceased in the early fifth century, that the coins were clipped to a consistent size but not weight, and clipping was not a 'one-off' event. A somewhat different approach is taken in Richard Abdy's study of the Patching, Sussex, hoard of Roman and Visigothic gold and silver coins, scrap silver and gold rings buried c.470 AD.² Abdy links the widespread occurrence of clipped silver coins to the period following the British revolt against Constantine III in AD 409, and agrees with Guest that after this date fresh gold and silver coins were no longer supplied from the continent. He goes on to advance the theory that clipping was a systematic process operated by local officials in Britain who needed to pay the remaining static frontier forces and *foederati*. The need to provide significant payments in silver to these individuals led to an epidemic of clipping, beginning about AD 410, which had come to an end by the time the Patching find was buried. This is an undeniably stimulating hypothesis, but the evidence supporting it is slim, as the author recognizes.

Despite earlier disagreements about when clipping began, there is little doubt now that it must be regarded as a post-Roman phenomenon, as it took place after the Roman (mobile) army had permanently departed, and presumably the higher echelons of the imperial administration as well. In this increasingly sub-Roman environment, the officials administering Britain were no longer bound to the same extent to Roman regulations and behaviour patterns as they had been in the fourth century. Thus it would have been possible to clip silver coins, despite it being a criminal offence, and it is worth noting in this context that, although the legend on a coin could be removed, the head (image) of the emperor was untouched.

Furthermore, once gold and silver reached Britain in the very late fourth and early fifth centuries, it tended to stay here. This phenomenon clearly contributes to the remarkably large number of hoards deposited in Britain from this period with gold and silver coins and objects, and rests on the assumption that there was more gold and silver available in Britain than elsewhere in the empire. However, Guest takes a different view and believes that there was no difference in the availability of gold and silver in Britain than there was anywhere else. This leads him to argue that the explanation for the burial of so many hoards in late and post-Roman Britain is that their owners had no intention of ever retrieving them, a notion that may not prove persuasive to everyone.

It is heartening that scholars are looking again at coin finds and use in the early post-Roman period and, on the basis of recent find evidence (hoards and single finds), have been able to offer new perspectives from which to assess the early sub-Roman period. Guest has coped well with a monumental body of coins and the difficulties of an historical period in which literary sources are virtually nonexistent. Anyone interested in the circulation of coinage in the late Roman and early post-Roman periods in Britain would benefit from reading not only the discussion in the Hoxne treasure volume, but also the articles by Abdy, Moorhead and Williams in *Coinage and History in the North Sea World*.

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Sylloge of Coins of the British Isles, 55: Hermitage Museum, St Petersburg. Part IV English, Irish and Scottish Coins, 1066–1485, by Marina Mucha (London: British Academy and Spink and Son Ltd., 2003), viii + 88 pp., 23 pls.

When the life of Marina Mucha, a curator of the Numismatic Department at the State Hermitage Museum in St Petersburg, was tragically cut short by cancer in 2002 she left behind her a catalogue of the museum's English, Scottish and Irish coins of 1066–1485 intended for a fascicle in the *Sylloge* series. She was well qualified to undertake this publication, as she had long been responsible for the Hermitage's collection of western European and American coins, and she wrote a University of St Petersburg dissertation on the English Tudor coinage, which has been published as M.V. Mucha, *Monetnye reformy Anglii v epokhu tiudorov, 1485–1603gg* (*Monetary Reforms in England in the Tudor Epoch, 1485–1603*) (St Petersburg, 2002). The cataloguing of the coins was no easy task, as the silver coins were completely without identifications when Marina Mucha started work, and the inventory of the gold coins lacked detailed identifications. Mark Blackburn, the General Editor of the *Sylloge* series, and his colleague Elina Screen brought the project to a successful conclusion as a fitting tribute to the memory of Marina Mucha, engaging the assistance of five experts on various series represented in the volume.

² Abdy 2006.

Readers of V.M. Potin's *Sylloge* of the Anglo-Saxon coins to 1016 in the Hermitage may already be familiar with the stories of the three major collections represented in this new volume.¹ 376 of the 494 coins came from the universal collection of over 53,000 coins and medals formed by several generations of the Counts Stroganov, which was confiscated after the October Revolution of 1917 and transferred to the Hermitage in 1925. There are eighty-four coins from the almost equally vast collection of over 50,000 pieces amassed by Jakob Reichel (1780–1856), which were acquired from his heirs in 1858, and thirty-four specimens belonging to Fedor Mikhailovich Plushkin (1837–1911), bought in 1914. All of the coins with known provenances beyond these three collections were acquired on the London market in the mid-nineteenth century. There are no coins with Russian find provenances, but the volume does provide a valuable insight into the nature of the material available to Russian collectors in the nineteenth century. This is demonstrated in particular by Blackburn's detailed discussion (on pp. 1–4) of the provenance of most of the seventy-nine coins of the *Paxs* type in the volume. Sixty-one coins of this type were purchased by Reichel from the John Brumell sale (Sotheby, 19 April 1850), and most of these were eventually distributed between the three collections in the volume. It may surprise some readers to discover that it was possible in 1850 to receive a London auction catalogue in St Petersburg, make selections from it, and send instructions to an English agent in time to bid at the sale, but such was the revolution in communications created by the then recent introduction of steamships.

The seventy-nine coins of the *Paxs* type dominate the Anglo-Norman section of the volume, which includes only ten other coins attributed to William I, four of William II, five coins of Henry I, and nine of Stephen. Five coins in this section are particularly worthy of note. A penny of William II type 3 (no. 93) with garbled inscriptions and a very low weight (1.06 g) is tentatively identified as a contemporary forgery. Not enough is known about the practice of forgery in the eleventh century and this coin might merit further study. A coin of Henry I type 9 (no. 96) has added Hastings to the list of mints recorded in this rare type, and a Stephen type 1 penny of the Carlisle moneyer Hudard (no. 100) is a valuable addition to the still relatively small corpus of coins issued in Carlisle under Scottish authority in the reign of Stephen. Two fine specimens of the York *Flag* type (nos 106–7) may be derived from the Cattal hoard of 1684, like many other coins of the York Group in old collections, although their original provenances have long since been lost. A possible criticism of the Anglo-Norman section of this volume and other recent *Sylloge* fascicules is that they continue to use Michael Dolley's chronology of the coinage of William I and II without qualification, although some students of the series would take issue with it.² The *Paxs* type for instance is dated to c.1083–c.1086 in the reign of William I (1066–87), although it has been

argued that it might be the first type of William II (1087–1100).³ Dolley's chronology of the coinage of Henry I has been superseded by Blackburn's much more soundly based chronology, and it may be time to review the chronology of the coins of William I and II to be used in future *Sylloge* volumes.⁴

The sections for the *Cross-and-Crosslets* (*Tealby*) and Short Cross coinages are relatively modest in size (five and twenty-eight coins respectively), but the Long Cross section is more extensive, with seventy-five coins. A penny of Long Cross class 5c in the name of the Durham moneyer Ricard (no. 211), described as a continental imitation, is perhaps more likely to be an official English issue, although some Long Cross imitations can be deceptively similar to their English originals. Highlights of a very useful series of eighty Edwardian coins include an Edward I groat (no. 213) and a rare class 15c/15d 'mule' of Canterbury (no. 285).⁵ Thirty coins of Edward III end with a *guennois* of Bordeaux (no. 322), and three further Anglo-Gallic coins in the name of Edward the Black Prince (nos 323–5) are inserted between the coins of Edward III and Richard II. It might perhaps have been better to create a separate Anglo-Gallic section, which could also have included three coins rather artificially integrated into the run of English coins of Henry VI (1422–61) (nos 372–4). A similar question arises as to the place of nine continental imitations of the Edward IV ryal from the Gorinchem mint (nos 384–92). As these coins were struck c.1585–7 it could be argued that they should have been placed at the end of the catalogue, following the practice of the *Sylloge* of the Schneider collection, or that they should have been omitted altogether on the grounds that they fall outside the chronological scope of the volume.⁶ On balance there is probably a case for including these coins alongside their originals, as has been done with two imitations of Henry VI nobles (nos 345–6) and an extremely interesting Henry V quarter-noble, described as probably imitative (no. 336). A Henry V groat from a class B obverse die with the 'mullet' (or cinquefoil) of class C added on the breast (no. 337) is also worthy of note.⁷ An excellent run of fifty-eight Scottish coins includes a remarkable David II Second Coinage groat, which provides a previously unrecorded die-link between the Aberdeen and Edinburgh mints. In the Scottish section the use of the term *Long Solid Cross coinage* for Alexander III's second coinage is novel, but it is a logical counterpart to the first, *Long Voided Cross coinage*. The volume ends with twenty-nine Irish coins.

This volume is admirably free from the minor errors that reviewers are obliged to seek, which is a testimony to the meticulous work of Marina Mucha, the editor and his collaborators. The reviewer noticed one unfortunate slip in a note to Plate I, where the Beauworth hoard is located in Sussex instead of Hampshire. In the Pre-Treaty coinage of Edward III a date should perhaps have been suggested for Series F, as has been done for the other Pre-Treaty series represented. The plates are extremely serviceable

¹ *SCBI* 50, 2–7.

² Dolley 1966, 15–21.

³ Archibald 1984, 324, 328.

⁴ Dolley 1966, 21–9; Blackburn 1990, 72.

⁵ Allen 2004, no. 15 (dies a9/r7).

⁶ *SCBI* 47, 87–9, nos 839–88.

⁷ Stewarby 2003, 103, suggests that the cinquefoil mark was introduced to distinguish the first coins of Henry V (1413–22).

and should not provide readers with any serious problems of legibility not inherent in the coins themselves. All in all this volume is a valuable addition to a series that is universally recognized as one of the cornerstones of research in British numismatics, publishing numerous coins that most numismatists would never have had access to in any other way.

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The Big Problem of Small Change, by Thomas J. Sargent and François R. Velde (Princeton, New Jersey, Princeton University Press, paperback edition, 2003), xxi + 405 pp.

HALF a century has passed since Carlo Maria Cipolla, in one of his stimulating lectures on *Money, Prices and Civilization in the Mediterranean World*, coined the phrase that prompts the title of Professor Thomas Sargent's and Dr François Velde's *The Big Problem of Small Change* and identified what he called 'the standard formula': the prescriptive answer to the conundrum of managing a currency supply with a functional balance of coins of large and small denomination that had dogged European monetary authorities from late medieval times to the nineteenth century.¹ What Cipolla did not do, in the authors' account, was to 'reveal' how his 'standard formula' – the efficient provision of a minor token coinage, limited in its legal tender and quantity, and convertible with 'full-bodied' money – came into being. This is what Sargent and Velde set out to achieve in their wide-ranging, if theoretically complex, discussion of the historical and conceptual processes by which governments groped their way towards the solution; a solution that eventually succeeded in resolving the previously endemic cycle of shortages of small coin hitherto vainly tackled through depreciation or debasement with, all too often, a consequential inflation of price levels. Their approach is to develop a theoretical framework or model and to relate to it an historical scenario of European examples of coin shortages, the

unavailing measures taken to counter them in a 'commodity money' ideology, and the ultimate realization of a viable token coinage through the adoption of the 'standard formula': a stepping stone, in its own turn, to the fiat money of today.

The book is divided into five parts. Part I defines the 'problem' and establishes the authors' theoretical framework and model. This focuses on the denominational structure of money and the importance of shortages of small coin that had the facility of being used for both large and small transactions, and introduces the authors' parameters of 'minting' and 'melting points' conditioning the supply of 'full-bodied' commodity money; principles which will be familiar to those members of the Society who attended the authors' lecture at the Warburg Institute in January 2006. Part II briefly explores the advances that took place in coining technology from the hammer to Boulton's steam press, and, in a rewarding Chapter 5 of this section, the evolution of monetary thinking from the Middle Ages to the seventeenth century, with an especially interesting account of the bearing of Roman and Canon law doctrines on coinage issues. The model is reintroduced in Part III where the experience of coin shortages in medieval England, France, Florence and Venice, and the French inflation of the seventeenth century are studied in relation to it. Part IV traces the development of token money in sixteenth- and seventeenth-century Europe and the inflationary effect of over-issue, again with reference to the model, and, in its concluding Chapter 19, provides a helpful summary of the book as a whole. Part V returns to the model, which is now comprehensively set forth in some depth.

British numismatists will find particular interest in Chapters 16 and 17 of Part IV, with their description of early seventeenth-century token issues, the so-called 'Locke-Lowndes' debate, the Great Recoinage and its endorsement of a 'commodity' currency, and the almost unconscious eighteenth-century drift into the Gold Standard. The ground covered will be familiar but the commentary is perceptive. Too much stress, though, is surely placed on Sir Henry Slingsby, Master of the Mint under Charles II, whom Sargent and Velde credit – as they have already done in Chapters 1 and 6 – not only with the fictive title given him in *CSPD* and reiterated by Peck, but, more pertinent to their thesis, with what they see as perhaps the first clear statement of Cipolla's 'standard formula' in the famous memorandum he addressed to the king urging the introduction of regal copper farthings in 1661.² But Slingsby's glimpse of the 'standard formula' was only partial, for while he was concerned to limit the issue of his proposed farthings and make them convertible with silver, he did *not* advocate the striking of token money because of the likely fillip this would give to counterfeiting; his farthings were intended to be 'full bodied' commodity money. Slingsby's proposals came to nothing, to be lost in the lumber-room of history, but, in any case, in the absence of any efficient system of monetary management, they would have proved impractical before the nineteenth century.

The treatment of Britain's stumbling progression towards a gold standard in Chapter 17 is unhappily

¹ Cipolla 1956, in Chapter III, 'The Big Problem of the Petty Coins', at pp. 27–37.

² Reprinted from *CSPD, Charles II*, 3, in Peck 1960, 601. The original document, clearly endorsed 'Mr. Slingsby's representation ...', is PRO: SP29/37.

unbalanced and cursory. The advance of gold as the country's standard circulating medium before its recoinage in the 1770s is not explained, while the public's practical acceptance of a degenerate silver coinage as a 'token' currency for most of the century is ignored. That the emphasis on gold and the apparent indifference to silver in the reforms of the 1770s were government's endorsement of a state of affairs that had existed for many years is not brought out as it might be. Silver was not reformed at the time because its subsidiary nature was fully appreciated. Too great a stress is thus put on the Coinage Act of 1816 for, important though it was, Britain's practical adoption of a gold standard had effectively taken place decades earlier.

In large measure the importance of the Coinage Act seems to be bound up with the authors' view that the adoption of the 'standard formula' in Britain had to wait until after the introduction of modern technology in the early nineteenth century. As they explain at the outset of their study, initially Sargent believed that the 'problem' of providing an adequate system of small change persisted because monetary authorities adopted the wrong model but that the evolution of the 'standard formula' revealed a better model and permitted the development of better policies. Velde, on the other hand, considered that the standard formula could not have been implemented without a reliable technology that would make counterfeiting difficult and concluded that technological limitations rather than ignorance of good economic theory created the monetary difficulties that were to endure until the nineteenth century. In the event the authors concluded that it was a combination of poor economic theory and inadequate technology that long delayed the implementation of the 'standard formula'. In the original form of *The Big Problem* – the paperback version under review is the third printing which, although the title verso does not make this clear, is in effect a revised edition – Sargent and Velde adopted Professor Redish's notion that Boulton's steam presses facilitated the introduction of the 'standard formula' with the production of superior provincial coins that were relatively counterfeit-proof and convertible (i.e. redeemable by their issuers).³ Taking account of Professor Selgin's recent work⁴ they have somewhat shifted their stance on the influence of steam in this instance, but they still credit 'new technologies' and convertibility as important to the circulation of the eighteenth-century token. It is, however, far from clear to what extent 'new technologies' were available to the run of token makers who, apart from Boulton, relied on manual presses. Equally, it is not the case that the eighteenth-century token was in any respect immune from counterfeiting or could reliably be redeemed for cash at its place of issue. Even Boulton's loudly trumpeted 1797 coinage was not secure from the counterfeiter and in no way can it be said, as the authors do (on p. 303), that by 1800 'Britain had mostly solved the problem of small change in practice'. The eighteenth-century token did not exemplify the 'standard formula' at work. Its introduction in Britain – and this country was the first to adopt it – was due not to the market but to government and, as the authors do conclude, did not come about until 1816 and then only in a piecemeal fashion. Steam did then have a

critical part to play in the production of a coinage that was token, but, even so, it was still by no means counterfeit-proof. And it was to be another generation before the 'standard formula' became fully established, by which time other factors beside new technologies had helped to complete the jigsaw: more sensitive distribution of the coinage facilitated by a developing banking system that also eased convertibility, and the acceptance of a fiduciary paper currency.

One pre-publication reviewer of the original version of the book described it as 'unusually clear' with 'none of the apparent obfuscation that other scholars accuse economists of practicing'. *The Big Problem*, in its narrative sections, is certainly skilfully argued and, despite the intrusive use of symbols rather than plain words, relatively easy to read. Considerable effort, though, is required to assimilate its theoretical base, which makes little concession to anyone whose grasp of the intricacies of sophisticated mathematical formulae is limited. The structure of the book and its episodic approach to monetary experiences also create something of a repeated sense of *déjà vu* while, at the same time, its circuitously fragmentary form entails a not-infrequent need to retrace one's steps to appreciate the flow of argument. But readers should not be deterred by the difficulties. Analytically challenging though it is there is much benefit to be gleaned from this attractive book by both monetary historians and numismatists. Inevitably, in a work encompassing such a wide sweep of experience there will be issues on which readers will disagree. One or two have been touched on here and there may well be others. Nevertheless, Sargent and Velde have made an original contribution to monetary history and they tell their story in an imaginative way.

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Encyclopedia of British Numismatics. Volume III. Numismatic Guide to British and Irish Printed Books 1600–2004, by Harrington E. Manville (London, Spink and Son Ltd, 2005). xi + 291 pp.

THIS is the latest instalment of the *Encyclopedia of British Numismatics*, which is now building into a resource that must be the envy of scholars in other lands. It follows volumes covering British auction catalogues 1710–1984 (published in 1986), numismatic articles in archaeological journals 1731–1991 (1993), and articles in numismatic journals 1836–1995 (1997) – all of which will duly be

³ Redish 2000, 153.

⁴ Selgin 2003.

found listed in this volume as item nos 1581, 1749 and 1834. As Manville explains in his Introduction, the intention was to list selected British and (pre-Republic) Irish 'printed books, as well as booklets, pamphlets, and pre-1950 offprints and reprints of articles ... which have a separately-printed title or cover page (and/or additions or corrections to the original)'. Inevitably the selection has had to be subjective, but one may legitimately doubt that more than a handful of even remotely significant works are likely to have been omitted. Given this definition of contents, it is perhaps surprising to find that a number of non-British publications have been included. For example, item no. 1240 is the (French) publication by Françoise Dumas-Dubourg of the tenth-century Fécamp hoard, presumably included because it includes English coins on pp. 289–94. (It would be churlish, however, to complain about the provision of these unexpected bonuses: users simply need to be aware that they are here.)

The items left out include 'broad-sides' (broad-sheets), works that deal primarily with militaria or banknotes, post-1950 general surveys and 'coffee-table' books (although Cribb, Cook and Carradice's *The Coin Atlas* does appear, as no. 1669), and books that cover mainly economics or political economy. Manville also initially tells us that 'Romano-British coins comprise a specialized study and are generally omitted here', but then goes on to say that 'books specifically on the coinage of Roman Britain are noted ...', which suggests that it is works on *Roman* coins in general that have actually been excluded. At all events, users will find works listed by such familiar names as Roger Bland, John Kent, Cathy King and Richard Reece. Within these limitations, the coverage is impressively thorough. All the editions of any book included have been listed, so that for instance one will find all three editions of Ruding rather than just the third (published in 1840), which is the one usually cited today.

A good index is an essential tool for the effective use of a list like this, and this one does not disappoint. Covering almost seventy pages (pp. 223–91), it runs from 'A___, A___' (author of an article reprinted from the *Encyclopædia Britannica* in 1824), to 'Zinc, anastatic plates of medals' (which leads to several mid-nineteenth century works). The indexing is by author, by title and by subject matter keywords – so that, for example, no. 1364, the BAR volume *Edwardian Monetary Affairs (1279–1344)*, can be found under 'Edward I to III (Edwardian)', under 'Monetary, Affairs', and under its editor 'Mayhew, N.J.' (In one of the rare slip-ups found by this reviewer, however, *The Coin Atlas* mentioned above did not actually appear under 'coin', but came to light under 'atlas'.) Manville discusses the complexities behind the alphabetical ordering of the index in the Introduction and users would be well-advised to spend a few minutes reading this before going on to use the book. Simply browsing the index is a pleasure, and it is likely to throw up all manner of items of interest. For example, I was fascinated to find reference (under 'Kangaroos, on 18c tokens') to no. 1527, *Kangaroos on English Tokens. A History and Catalogue of Late 18th Century Copper Tokens Depicting Kangaroos* by Peter Lane (Adelaide, 1984) – surely not the first subject that comes to mind when thinking of these pieces.

The nature of this book defies detailed review – all one can do is try to give a flavour of it. The main text ranges

from no. 1, Camden's *Britannia* of 1600, to no. 1945, Paul and Bente Withers's *Irish Small Silver. John-Edward VI. Small Change*, 6, reviewed in last year's volume of this journal. The works listed also vary dramatically in size, including both no. 1683, *The Seventeenth Century Token of Cobham in Surrey*, a publication of 1980 which contains just four, unnumbered pages, and no. 1716, *A New History of the Royal Mint*, edited by Christopher Challis, which weighs in at over 800 pages. The individual entries vary in the amount of information that they provide. In some cases there are simply the basic bibliographic details, but in many others the entry is accompanied by quotations from the original book jacket that explain the subject matter in more detail. This can be helpful, but even better are the (rather less numerous) occasions when some helpful comments on the work have been added by the compiler. As an example, no. 1993, *Coin Facts and Feats*, is described as 'an extreme potpourri, difficult to find one's way around, but filled with interesting gatherings of facts ...' (As Manville explains in the Introduction, these notes were deliberately varied in length and content 'to help break up what is after all a cascade of hundreds of very similar entries'.)

This reviewer was particularly struck by the very helpful way that the individual papers in edited volumes were listed. The same has been done for the contents of the three volumes of *The Yorkshire Numismatist* (vol. 1 – no. 1631; vol. 2 – no. 1720; vol. 3 – no. 1821). This will be especially useful for those 'I know I've seen it somewhere, but where on earth was it' moments. It is similarly helpful that the entries for those *Sylloge* volumes that cover British collections list all of the museums whose holdings are represented in the relevant volume. Another useful feature are the brief descriptions that accompany the first reference to many pre-1950 authors, like 'John White, Hatter, Coin Dealer and Coin Forger (d. 1787)'. (More recent authors are not tagged in this way in the main text, but there are brief descriptions attached to all the authors' names in the index.)

Many entries tantalise and leave you wanting to know more. For instance, who could resist the lure of no. 43, the splendidly titled *Sir William Petty's Quantulumcunque Concerning Money*, 1682, while there is clearly an article waiting to be written on the career of the seventeenth century goldsmith Thomas Violet, who 'may have been a despicable rogue and quite possibly mentally ill' (p. 7), who entrapped people into illegally exporting gold and silver (in the hope of obtaining their property as a reward for denouncing them), and who eventually became a spokesman for the Company of Moneyers in their resistance to Blondeau's coining machinery (pp. 7–10).

Robert Thompson has contributed a Preface to this book, in which he notes that it will save an enormous amount of time for researchers in verifying their references, something that the reviewer can confirm from experience during the editing of this volume of the *BNJ*. He also makes the important point that, despite those who see the internet as satisfying all the future demands of scholarship, we will need to continue publications like this: 'Everything here is relevant to British numismatics. We are not faced with thousands of hits which may conceal the really useful. Scholarly intercourse requires reference not to fly-by-night websites, sometimes of uncertain authority, but to the enduring resource of the printed book.' One can only agree with him, applaud

Manville's achievement, and look forward to the promised next instalment of the *Encyclopaedia*, a biographical dictionary with a target publication date of 2009.

DAVID SYMONS

'Remember Nelson': Campaign and Commemorative Medals, Portrait Medallions and Associated Insignia 1797–2005, by Thomas A. Hardy (London, Spink, for the Nelson Society, 2005), xvi + 141 pp.

THE present work is the second edition – the first, published in 1985, having apparently escaped the notice of *BNJ* – and has been published to coincide with the bicentenary of Trafalgar. It takes the form of a listing in date order of medals and other small mementoes relating to Nelson and is full of fascinating material. This book, however, is very much one for the Nelson enthusiast, for there is very little by way of background to the events commemorated to assist the general reader; and its use is not helped by the layout and typography. In some areas a different arrangement of the contents might have been helpful, for instance grouping the 'campaign' medals and copies of them; and placing the British & Foreign Sailors' Society productions together (there are nine items, interspersed with others, with a useful note on the Society placed after the eighth). Illustration, too, is patchy in places – with twenty years between editions this could perhaps have been made more comprehensive.

By publishing in the Bicentenary year, the author has not been able to catalogue many of the latest commemoratives (he refers to forty, planned or in production, but lists only eight). There might have been a case for a slight delay in order to bring the catalogue fully up to date before publication. A third edition is already needed, and in his Foreword the author seeks news of further discoveries. From Wales may be provided such a titbit: according to R.D. Roberts of Bethesda, Caerns., from whom a specimen of the BFSS medalet type 117/3 was acquired, these were given at Porthmadog to those who collected seven shillings and sixpence – a somewhat stiffer requirement than those quoted on p. 83!

EDWARD BESLY

Hotels and public houses in the county of Lincolnshire: token coins and historical details of issuers and premises 1840 to 1940, by N.J. Hutchinson (Cleethorpes (47 Pearson Road, DN35 0DR), Pignunmus Press, 2004), 362 pp., illus.

THE details above do not convey an adequate impression of this book. Having gathered his information, Mr Hutchinson set about making the book his own, in the fullest sense. He appears to have had at least a hand in the printing, with no offsetting from the clear black typeface. The specimens have been superbly photographed, and reproduced at a standard size of about 38 mm (actual

diameters are recorded). He selected a fine white paper, yet not so thin as to let print show through. The marbled end-papers are reminiscent of peacock feathers, all edges match, and the volume has been hand-bound in quarter-leather by N.J. Hutchinson. The publisher shares an address with the author, so this is very much Mr Hutchinson's book. It has clearly been a labour of love.

Therefore one notices the smallest of infelicities. The title as given above substitutes a colon for a comma, and such usages as 'comprised of', 'ran' for *run*, and 'to compulsory purchase' are also not very grammatical. The page number on the title page is unusual, but this reviewer would make only two real criticisms of the production. The slipcase, being lined on the inside, is actually a non-slip case, and he has abandoned it for normal use. Secondly, the bookmark ribbon is attached to the back board instead of the spine, though that is understood to have been an individual oversight.

The introduction incorporates a well-researched understanding of licences and of pub games. It is interesting to learn of Grantham's Blue Cow (formerly Red), Blue Horse (formerly White), even Blue Man (formerly Green) *et al.*, re-named through the Whig ambitions of Sir William Manners (1766–1833), Bart., from 1821 surnamed Talmash and styled Lord Huntingtower. Several of his names were given to local public houses.

Part One (pp. 39–176, 361–2) is an illustrated catalogue of known tokens in alphabetical order. On token no. 10 BOSTON was evidently a mistake for SPALDING, which supports the railway line drawn between the two in Fig. 21 of Yolanda Courtney's *Public House Tokens in England and Wales*, published at about the same time; a travelling salesman seems to have mixed up his orders. Another mistake deriving from a written order would be GOUERBY for GONERBY on no. 390. There are other implications for tokens in general; for example, if nos 565–70 are from the same dies, these would appear to have been softened before REED was entered in the blank field. No specimen of nos 25, 525, or 660 has been located, but all are taken from Neumann, and might be among those which Josef (not Joachim) Neumann gave to the Kunsthistorisches Museum in Vienna.

Part Two (pp. 179–351) comprises historical notes on premises and licensees, with nice old photographs. In Louth, East & Co. have tokens for a pint and a GILL, with a number left in reserve for a half-pint; yet Wright's *English Dialect Dictionary* shows that in parts of Lincolnshire gill did mean half a pint. Narratives have been constructed from unidentified sources and will be mainly of local interest, but it may be noted that the Red Lion (p. 206) was not, according to Fox-Davies and Pinches, the badge of John of Gaunt. For the Battle of 'Bosworth' (p. 268) read 'Worcester'. No matter, the book is not about badges and battles, has been very well produced, and a handsome volume is the result.

R.H. THOMPSON

PRESIDENT'S REVIEW OF THE YEAR 2005

MARK BLACKBURN

THIS year a good deal of our Council's time has been taken up with discussing the Society's awards and prizes. Following the celebrations last year of the centenary of Christopher Blunt's birth in 1904, it was decided to rename the Society's Council Prize as the Blunt Prize. The Council Prize had been established in 1984 during the presidency of Hugh Pagan, and Hugh told me that it had occurred to him then how appropriate it would have been to name the prize after Christopher Blunt, but he did not suggest it as he knew that Christopher would, through modesty, not have agreed to the idea. Now that he was no longer able to object, and with the enthusiastic support of the Blunt family, Council made the change. The first Blunt Prize was awarded in May to Dr Shailendra Bhandare, one of the most talented numismatists of his generation, and a specialist in the coinages of India (see p. 404 below). It is the first time that the Society has given one of its awards primarily for work on the coinage of one of the Commonwealth states, and I am delighted that we should have done so.

Meanwhile, Council had commissioned a small committee chaired by Stewart Lyon to consider the terms of the John Sanford Saltus Medal, in particular whether they were serving the best interests of our subject in the early 21st century in the light of current patterns of research and publication. As a result of their recommendations a number of significant changes were made to the rules (see pp. 402–3 below). In particular, while previously the award had been based on publications in the *British Numismatic Journal*, the regulations now require all an author's publications in the field to be taken into account, and make non-members eligible, which was not the case before. A majority on the committee also recommended that the award should be decided discretely by Council, rather than by a vote of all the membership, but Council preferred not to implement this proposal. Today we have voted for the first time under the new rules, and I would be happy to receive comments in due course about how well they have operated. A new reverse die with revised wording will be prepared in time for the presentation of the medal in May 2006.

The third action undertaken in respect of the Society's awards was to launch an appeal for funds to establish a Prize Fund to support them. The original endowment for the John Sanford Saltus Medal having long since been dissipated, and the Council/Blunt Prize only ever having been supported from current income, we wanted to secure the long-term future of these awards without their being a burden on members' subscriptions. The Society is currently in very good health, and it seemed to me that this was the time to show our strength by providing a fund to protect these prizes if, through changes in fashion or whatever, times turned lean for our subject.

I am delighted to announce that within the last few weeks the appeal has met its target. We have raised £7,751 from more than 80 donors.¹ In addition Christopher Blunt's son and two daughters have very generously pledged that during their lives they will pay every third year the £300 awarded to the recipient of the Blunt Prize. One member has also said that he will leave the Society a legacy under his will. I am immensely impressed by the support that the appeal has received from a broad cross-section of members in Britain and abroad, of those involved with the running of the Society and less active members. I am as grateful for the small gifts, as for the large ones. One member said to me that he had had a lot of pleasure and benefit from the society over many years and was pleased for an opportunity to repay this in some way. Although the capital in the Prize Fund is not ring-fenced as an endowment, my expectation is that the income will be sufficient both to pay for the awards and to allow for modest capital growth to keep pace with inflation.

¹ By the close of the appeal the sum raised amounted to £8,295 from 97 donors. A list of contributors to the Prize Fund is printed on p. 405 below.

Turning to the review of the year, there have been 39 elections (three of which are institutions), four deaths, eleven resignations and eleven amovals. This evening we elected no less than 19 new members, the highest number at one meeting since 1909. This wave of nominations was a result of the stall that we took at the Coinex fair in October, and which was manned by several of our members. As a result the total membership today stands at a record 619, compared with 606 last November. The previous all-time high of 617 was in 2002, before the increase in subscriptions.

	Anniversary Meeting 2004	Anniversary Meeting 2005
Honorary	9	9
Ordinary	478	488
Ordinary (students/under 21)	5	6
Institutions	114	116
Total	606	619

The four members we have lost through death are:

Jerome (Jerry) Hosmer REMICK III (elected 1971), died 1 March 2005 at the age of 76. He lived in Quebec, and was one of Canada's best-known numismatists. He was a founding member of the Canadian Numismatic Association in 1950, and was the author or co-author of numerous books on coins and tokens of the Commonwealth, the best-known of which is *The Guide Book and Catalogue of the British Commonwealth Coins* (originally written with Somer James and Howard Linecar). He was a geologist by profession, working for the Quebec government, and after retirement he was a generous benefactor of the Canadian Geological Foundation.

Elizabeth (Liz) Jean Elphinstone PIRIE (elected 1960), died 1 March 2005 (the same day as Mr Remick) at the age of 74. Liz trained as an archaeologist, but working as a museum curator at Chester, Maidstone and then Leeds her research interest focused on numismatics. She published articles on various topics and a number of books, including two *SCBI* volumes, Chester part 1 and Yorkshire Collections, but it will be for her contributions on the Northumbrian styca series that she will be most remembered. Although her interpretation was in part controversial, her meticulous die-studies published in particular in *Coins of the Kingdom of Northumbria, c.700–867* will stand as the basis for all future work. A full obituary will appear in *BNJ* 75 (2005).

Ivan Robert BUCK (elected 1967), died 7 March 2005, aged 71. For many years Ivan Buck was a central figure in the Essex Numismatic Society. In 2000 he published a well-illustrated survey of *Medieval English Groats*, a subject that had long interested him.

David Arnold CHAPMAN (elected 1976), died 7 August 2005, aged 69. He lived at Maidstone, Kent. After his death Mr Chapman's widow sent a donation to the Prize Fund in his name, saying what a vital part his interest in coins had played in helping him deal with his long terminal illness.

Although not a member of the Society, I would nonetheless like to mention the death of:

Dr Vsevelod POTIN, former Director of the Numismatic Department at the Hermitage Museum, St Petersburg, who died on 12 September 2005 at the age of 87. He had been responsible for curating the Anglo-Saxon coins, among others, for over 50 years, and had written on them in the 1960s. More recently he enthusiastically accepted the Sylloge Committee's invitation to prepare the British coins in their collection for publication in the *Sylloge*. His Hermitage vol. 1 appeared in 1999, and vol. 2 should be published later next year. Vol. 4, by his colleague Marina Mucha, was published in 2004, which leaves vol. 3 on the Scandinavian imitations, which Dr Potin and I had been working on together. There is no retirement age at the Hermitage, and because of the economic situation there he continued as head of the Numismatic Department until he was about 82, and at the time of his death he was still nominally curating part of the collection.

On a happier note, tonight, although he is unable to be with us, Stewart Lyon (our Senior Vice President) completes his 60th year of membership, and John Porteous completes 50 years. I am

pleased to say that Mr Porteous is here, and has generously sponsored the champagne reception that will follow this meeting. During the year Rev. K.V. Hewitt also joined that elite club of members of more than half a century's standing.

We also have cause to congratulate David Symons, one of our Editors, on the award of a PhD from Birmingham University for a dissertation on *Aspects of the Anglo-Saxon and Norman Mint of Worcester, 975–1158*. Three of our members have been elected Fellows of the Society of Antiquaries during the year: Nick Holmes, Anthony Freeman and William Mackay. Our Secretary, Elina Screen has been appointed to a Temporary Lectureship in Early Medieval History at Cambridge, and the British Museum has a new curator for modern coinage and paper money, namely Catherine Eagleton, who lectured to us at our Summer Meeting in Shrewsbury. The programme of monthly lectures has ranged widely across time and subject matter, offering I hope something to interest everyone. The Shrewsbury meeting was well attended, though mainly by people who had travelled far taking the opportunity to turn it into a weekend break.

There are a number of volumes that should be coming forward for our Special Publications series, the most advanced of which is Robin Eaglen's work on *The Abbey and Mint of Bury St Edmunds to 1279*. This is currently being edited and should appear next summer.

Four people will be retiring from Council, and I thank them for the time and support they have given in this capacity – Donal Bateson, James Morton, John Roberts-Lewis and David Sealy. Thanks as usual go to my fellow officers for the enthusiastic spirit and efficiency with which they have performed their duties. The separation of the Secretary's role between Charles Farthing and Elina Screen has, I think, been very successful. We are also very grateful to those who have worked quietly behind the scenes, whether organising our parties, such as that tonight, or manning the library on rota days. I thank them for their contributions, and I thank you all for your support in attending our meetings in such strength.

The President then delivered the second part of his address, 'Currency Under The Vikings. Part 2. The Two Scandinavian Kingdoms of the Danelaw, c.895–954', printed at pages 204–26 above.

PROCEEDINGS OF THE BRITISH NUMISMATIC SOCIETY, 2005

All meetings during the year were held at the Warburg Institute and the President, Dr M.A.S. Blackburn, was in the chair throughout.

(For Officers and Council for 2005, see Volume 75)

25 JANUARY 2005. Katharine Alicia Teresa Eustace and Leigh Ann Gardner were elected to Ordinary Membership and the Museum of Reading to Institutional Membership. Mr Charles Farthing then read a paper entitled *Stuart medals: a fateful decision*.

22 FEBRUARY 2005. Mr David Ayling-Smith, Mrs Geraldine Chimirri-Russell (Canada) and Dr John Lines were elected by Council to Ordinary Membership and Liberalitas Antiques Ltd to Institutional Membership. Mr Timothy Crafter then read a paper entitled *The Crescents-and-Pellets coinage of William the Lion*.

22 MARCH 2005. The President announced the deaths of three members, all of whom had contributed significantly to numismatics: Mr I.R. Buck, Miss Elizabeth Pirie and Mr J.H. Remick (Canada). He announced the decision of Council to rename the Council Prize in memory of Christopher Blunt. Dr Richard Hobbs then read a paper entitled *Precious metal 'hoarding hotspots' in late Roman Britain*.

26 APRIL 2005. Professor Svein Harald Gullbekk (Norway) and Mr Kenneth James John Elks were elected to Ordinary Membership. Dr Julian Baker then read a paper entitled *Lost change: recording and interpreting medieval and early modern stray coin finds*.

24 MAY 2005. Messrs John Richard Chatwin, Jonathan Morris and John P. Wall (USA) were elected to Ordinary Membership. The President announced the award of the first Blunt Prize (formerly the Council Prize) to Dr Shailendra Bhandare, and invited Mr Simon Blunt, the son of the late Christopher Evelyn Blunt, to make the presentation. Dr Bhandare then read a paper entitled *The East India Mint at Bombay: Early Years 1672 – 1715*.

28 JUNE 2005. The 50th anniversary of the election of Rev. K.V. Hewitt was acknowledged by the President. Rev. Hewitt had generously donated his numismatic library to young scholars some years ago. Professor George Selgin then read a paper entitled *Matthew Boulton and the reform of Great Britain's coinage: myths and reality*.

27 SEPTEMBER 2005. The President announced the death of Mr D.A. Chapman. Messrs Trevor Charles Legg, Bradley Scott Shepherd and Richard James Shipley were

elected to Ordinary Membership and the Numismatic Association of Australia to Institutional Membership. Dr Veronica Smart then read a paper entitled *The hidden invaders: continental moneyers in tenth-century England*.

25 OCTOBER 2005. Ian Berryman, Brett Hammond, Mrs Lorraine Ring and John Thomas Turner were elected to Ordinary Membership. Professor Barry Cunliffe then read the 9th Howard Linecar Memorial Lecture entitled *Boundaries and territories in late Iron Age Britain: evidence from coins*.

22 NOVEMBER 2005. The 60th anniversary of the election of Dr C.S.S. Lyon, and the 50th anniversary of the election of Mr J. Porteous, were acknowledged by the President. Messrs Gordon England Cawthorne, Albert Chandler (Denmark), Robert Bryan Cooper, Richard Dennett, Richard Edward Dodd, Sanford J. Durst (USA), Luciano Garli, Graham Edward Garner, Robert Garnett, Frank Hulett, Peter Kurz, Francis William Mason, Gregg Moore (USA), Geoffrey Leonard Riddle, Simon David Rawlings Sheppard, and Drs Allan Chapman, Guy Louis Graff (Belgium), John Eric Haselden and Charles Wander were elected to Ordinary Membership. The result of the ballot for the Sanford Saltus Medal for 2005 was announced, it being awarded to Mr P. Woodhead. The following Officers and Council were elected for 2006:

<i>President:</i>	M.A.S. Blackburn
<i>Vice-Presidents:</i>	C.E. Challis, C.S.S. Lyon, P.D. Mitchell, H.E. Pagan, Lord Stewartby and P. Woodhead
<i>Director:</i>	K. Clancy
<i>Treasurer:</i>	P.H. Mernick
<i>Librarian:</i>	A.J. Holmes
<i>Secretary:</i>	Elina M. Screen
<i>Membership Secretary:</i>	C.R.S. Farthing
<i>Council:</i>	Angela Bolton, T.C.R. Crafter, J.E. Cribb, P. de Jersey, G.P. Dyer, D.W. Dykes, R.J. Eaglen, R. Kelleher, A.W. Lyons, W.A. Mackay, J.G. Scott, Frances Simmons, P. Skingley and D.J. Symons

Council's proposal that the subscription should remain unchanged at £32 for Ordinary Members and £15 for members under age 21 or in full-time education was approved. The President, Dr M.A.S. Blackburn, then delivered his second Presidential Address, *Currency under the Vikings: 2. The two Scandinavian kingdoms of the Danelaw, c. 895–954* and was thanked, on behalf of the membership, by Mr P. Woodhead. Members present then attended a champagne party sponsored by Mr J. Porteous in celebration of his 50 years of membership.

EXHIBITIONS

January:

By C.R.S. Farthing.

The anti-Jacobite medal published by Michael Sharp in *BNJ* 65 (1995), 226 (Pl. 20,8).

Obv. Bust of Duke of Cumberland (no titles).

Rev. Bell of Carlisle Cathedral, 1745.

This medal is similar to the only other known example, which differs in having the Duke of Cumberland's titles inscribed on the obverse.

September:

By H.E. Pagan.

A rare sale catalogue of the Henry Clay Miller collection (New York, 1920) of Anglo-Saxon and Norman coins.

SUMMER MEETING

The Summer Meeting of the Society, *Bullion and Money: The Influence on British Coinage of Discoveries and Flows of Bullion*, was held at the Music Hall in Shrewsbury on Saturday 9 July 2005, with the President in the chair. During the morning session, papers were read by Professor Peter Spufford, *From Mines to Currency, 1150 to 1750*; Dr Glyn Redworth, *New World Gold and the Tudor Coinage*; and Mr Timothy Green, *The Accidental Gold Standard*. In the afternoon, papers were read by Dr Catherine Eagleton, *Silver Currencies of British East Africa*; Mr John Casey, *Roman Britain: Monetizing a Third World Economy*; and Professor Michael Metcalf, *Anglo-Saxon Bullion Flows and the Balance of Payments*.

REVISED RULES FOR THE JOHN SANFORD SALTUS MEDAL

The following revised rules for the John Sanford Saltus Medal were adopted by Council on 24 May 2005. In consequence a new reverse die will be prepared by Spink for striking the 2005 Medal for presentation in May 2006.

1. The obverse of the medal shall bear a device representing Britannia on the seashore, surrounded by the legend THE BRITISH NUMISMATIC SOCIETY. The reverse shall bear the legend THE JOHN SANFORD SALTUS MEDAL AWARDED TO FOR SCHOLARLY CONTRIBUTIONS TO BRITISH NUMISMATICS (the name of the recipient and date of the award being engraved in spaces left for that purpose).
2. In case such device and legend, other than the name of Mr John Sanford Saltus, shall from constitutional changes or other unforeseen circumstances become inappropriate or obsolete, they may be changed or varied by resolution of the Society's Council.
3. The John Sanford Saltus Medal shall normally be awarded every third year.
4. The medal shall be awarded to the person, being a member of the Society or not, who shall receive the highest number of votes from the Members as having in their opinion made the scholarly contribution to British numismatics most deserving of such recognition, as evidenced by published work or works, whether in the *British Numismatic Journal* or elsewhere.
5. A successful candidate shall not again be eligible for the award.
6. The award shall be by ballot, and a form for this purpose shall be sent out together with the voting papers for the election of President, Officers and Council, and shall be returnable and counted with them at the Anniversary Meeting in each year in which the medal is to be awarded. Such a form shall include the words 'I vote for the award of the John Sanford Saltus Medal to ...', with a space left for the Member's signature. It shall also contain the names of those previous recipients who are therefore no longer eligible for the award.
7. Council, acting on the advice of a committee of such disinterested persons (normally being previous recipients of the medal) as in its absolute discretion it shall have appointed for the purpose, shall on every such occasion distribute to Members a list of such persons who are considered as particularly well-qualified for the award, together with a note of their principal publication or publications relating to British numismatics. Council shall also advise Members

that publications of joint authorship should be considered as part of the total contribution by any of the individuals concerned, but should not by themselves be regarded as sufficient to qualify those individuals for the award.

8. Any canvassing by or on behalf of a candidate shall render his or her success inoperative, and the decision of Council shall be absolute on this head, nor need Council express any reasons for such a decision.

9. The result of the ballot shall be announced by the President or Chairman at the Anniversary Meeting in the year concerned.

10. The medal shall, if circumstances permit, be presented by the President or chairman to the successful candidate in person at a subsequent Ordinary or Anniversary Meeting of the Society. On this occasion he shall use the formula 'You have been awarded the John Sanford Saltus Medal of the British Numismatic Society for the year ... , by the vote of the Members of the British Numismatic Society, for your scholarly contributions to British numismatics'.

11. Council may in exceptional circumstances propose to Members that a special award of the medal be made to a distinguished scholar whose work has had an important bearing on the study of British numismatics.

12. The foregoing rules shall, so far as is possible, evolve with and upon any constitutional changes in the Society, but it shall be open to the Society's Council to make such alterations to them, or authorise such temporary procedural variations, as shall from time to time be required.

PRESENTATION OF BLUNT PRIZE 2005 TO DR SHAILENDRA BHANDARE

In announcing the presentation on 24 May 2005, the President said:

As many of you will recall, last year we celebrated the one hundredth anniversary of the birth of Christopher Blunt. At our June meeting we heard five short papers about Christopher's numismatic work and two personal responses from his daughter-in-law, Mrs Julia Blunt, and son-in-law, Prof. Karl Morrison. These brought out Christopher's seminal contributions to British numismatics, and in particular his promotion of this Society; his support for younger scholars was also stressed. Out of that there developed an idea that it would be very appropriate to rename our Council Prize in Christopher Blunt's memory. I sounded out the Blunt family to see if this suggestion appealed, and Christopher's son, Simon Blunt, having consulted his sisters, responded enthusiastically. Indeed the three of them most generously pledged to support the Prize financially. Earlier this year, then, Council resolved to change the name of the Council Prize to the Blunt Prize, and increase its value from £150 to £300. I am delighted that Simon and Julia Blunt have joined us this evening and in a moment I will ask Mr Blunt to present the first Blunt Prize.

The Prize will continue to be awarded every three years, and the criteria for selecting the recipient remain the same. It is to be given to a younger person, preferably under thirty-five, whether a member of the Society or not, who has made a significant contribution to the study of coins, medals or tokens, struck or used by the peoples of the British Isles and Commonwealth and the United States of America, and of such territories as may at any time be or have been subject to their jurisdiction. When the Council came to consider the award this year it chose from a short-list of six strong candidates. The person chosen as the recipient of the first Blunt Prize emerged with a very clear majority, and represents other firsts too. He is the first scholar to have been recognised through an award of the Society for his work on the numismatics of one of the Commonwealth countries, and it is the first time we have made an award to a non-member of the Society, though we hope we may persuade him to join. This young scholar's outstanding command of his subject, his inspired lectures and prolific publications left us in no doubt that he is a very worthy recipient.

Shailendra Bhandare, who is now 36, started as a coin collector and amateur enthusiast in Bombay (Mumbai). His first degree from the University of Mumbai was in Pharmacy (in 1991), but his growing interest in numismatics led him to study part-time for an MA in History (1994) and for a PhD, on Coinage of the Satavahana era (first century AD), in 1999.

His knowledge of Indian coinage is wide-ranging and deep, with publications spanning the earliest punch-marked coinages to modern banknotes and coins. He has taken a special interest in the monetary history of the Mughals, East India Company and Princely States, i.e. the period of British activity and rule in India. In 1999 he came to Britain on a Charles Wallace Visiting Fellowship for three months to study coins of the Princely States at the Fitzwilliam Museum, Cambridge, preparing a catalogue of the collection. He subsequently obtained a scholarship to work on similar coins at the British Museum, before being appointed in 2002 to the post he currently holds at the Ashmolean Museum, Oxford, as Assistant Keeper of South Asian Numismatics.

He is the principal author of a book on Indian banknotes and has published many articles in Indian journals and elsewhere, including seventeen in the *Oriental Numismatic Society Newsletter* in the last five years. He is widely regarded as one of the most promising and talented numismatists India has ever produced. His contribution to the study of coinage during the British period in India has already been significant, and clearly much more is to come.

The President then invited Mr Simon Blunt to make the presentation to Dr Bhandare.

THE PRIZE FUND APPEAL 2005

IN the Spring of 2005 the President launched an appeal to establish a fund to support the John Sanford Saltus Medal, the Blunt Prize and any other prize that the Society may establish from time to time. By the close of the Appeal £8,295 (including reclaimed tax on donations under Gift Aid) had been raised from 97 donors. Contributors to the Fund included:

A.I.J. Abramson
J.P. Andrew
Dr O. Anze
Miss M.M. Archibald
B. Arthur
Miss E.M. Atkinson
P.R. Bagwell Purefoy
J.H. Bamforth, OBE
D.E. Bentall
E.M. Besly
Dr M.A.S. Blackburn
Mr and Mrs S. Blunt
P.M. Broomfield
L.A. Brown, LVO
Professor I.D. Brown
M. Bull
Dr A.M. Burnett, FBA
D.A. Chapman
Dr K. Clancy
W.N. Clarke
R. Cook
T.C.R. Crafter
M.J. Cuddeford
E.W. Danson
A.J. Davis
The Drapers' Company
W. Duerr
S.A. Dunlop
G.P. Dyer, OBE
Dr D.W. Dykes
Dr R.J. Eaglen
A.C. Eimer
T.F.J. Everson
Lieut.-Cdr. C.R.S. Farthing, RN
D. Fearon
Dr A.W. Fox
Dr W.A.D. Freeman
A.J. Gilbert
I. Goldbart
J.D. Gomm

E.C. Goodling
R.E.H. Grayburn
Sir John Greenaway, Bt
Professor P. Grierson, FBA
Mrs Y. Harvey
E.C. Hodge
N.M.McQ. Holmes
D.B. Kightley
P.E. Leach
M. Lessen
Dr E.L. Levine
Dr C.S.S. Lyon
H.E. Manville
C.J. Martin
P.D. Mitchell
Professor and Mrs K.F. Morrison
Mrs J. Mustoe
Ms E.K. Norfolk
J.J. North
H.E. Pagan
Dr J.J. Platt
J. Porteous, OBE
J.E. Roberts-Lewis
C.H.T. Rooney
Dr E.M. Screen
D.L.F. Sealy
R.J. Seaman
R.W. Searle
Mrs F. Simmons
Mrs M. Sinclair
Rt Hon. Lord Stewartby, PC, FBA
Col. C.R. Stueve
R.J. Thomas
R.H. Thompson
D.J. Tisbury
P.D.S. Waddell
Rt Hon. Sir John Wheeler, PC
P. Withers
P. Woodhead

THE BRITISH NUMISMATIC SOCIETY REPORT OF THE TRUSTEES FOR THE YEAR ENDED 31 DECEMBER 2004

THE British Numismatic Society was founded in 1903, and is a registered charity (No. 275906). The Society is established for the benefit of the public through the encouragement and promotion of numismatic science, and particularly through the study of the coins, medals and tokens of the peoples of the British Isles and Commonwealth and the United States of America, and of such territories as may at any time be, or have been, subject to their jurisdiction.

The Society's activities are governed by its rules, amended in November 2002 and reprinted in April 2003, by order of Council.

The trustees of the Society for the year ended 31 December 2004 were the officers and members of Council comprising:

M.A.S. Blackburn (President); C.E. Challis, C.S.S. Lyon, P.D. Mitchell, H.E. Pagan, Lord Stewartby, P. Woodhead (Vice-Presidents); K. Clancy (Director); P.H. Mernick (Treasurer); A.J. Holmes (Librarian); C.R.S. Farthing (Secretary to November 2004, then Membership Secretary); E. Screen (Secretary from November 2004); N.M.McQ. Holmes (to November 2004), P. de Jersey (from November 2004), D.J. Symons (Editors); J.D. Bateson, E.M. Besly (to November 2004), A. Bolton (from November 2004), T.C.R. Crafter, J.E. Cribb (from November 2004), P. de Jersey (to November 2004), G.P. Dyer, D.W. Dykes, R.J. Eaglen (from November 2004), V.H. Hewitt (to November 2004), S. Hill (to November 2004), A.W. Lyons (from November 2004), J.L. Morton, J. Porteous (to November 2004), J.E. Roberts-Lewis, D.L.F. Sealy, P.J.E. Stevens (to November 2004), F. Simmons (from November 2004) (Council).

The registered address of the charity is that of the current Treasurer, P.H. Mernick, 42 Campbell Road, London E3 4DT and the Society's bankers are the National Westminster Bank PLC, PO Box 10720, 217 Strand, London, WC2R 1AL. The Independent Examiner is R.A. Merson, FCA, Tanyard House, 13A Bridge Square, Farnham, Surrey, GU9 7QR.

Society meetings were held on the fourth Tuesday each month from January to June and September to November inclusive at the Warburg Institute, University of London, at which a substantive paper was read. On 3 July, a special one-day meeting on *Art and Symbolism of Coinage Design* was held at Canterbury Christ Church University College.

In December 2004 the Society published Volume 74 of *The British Numismatic Journal*. This was a hardbound volume of 256 pages and 28 plates, and contained 11 principal articles and 15 short articles and reviews. It also incorporated the 2003 Coin Register, which listed in detail 367 single coin finds in Great Britain and Ireland, the 2003 Presidential Address and Proceedings, and the Society's financial accounts for the year ended 31 December 2002.

During the year, the Society's web-site (www.britnumsoc.org) hosted by the Fitzwilliam Museum, Cambridge, gave a mix of permanent factual information about the Society and details of its current programme of meetings and activities. In addition, UK members received two issues of the CCNB (Coordinating Committee for Numismatics in Britain) Newsletter containing short and topical articles, reviews and details of meetings and exhibitions.

The Society holds a substantial library, jointly with the Royal Numismatic Society, which is located at the Warburg Institute, and actively maintains a programme of acquiring new books and rebinding existing books, as necessary. Books are available for loan to members, both in person and by post.

Annual subscriptions were paid to the International Numismatic Commission and the British Association of Numismatic Societies (BANS).

The Society is financed by an annual subscription of £32, paid by both ordinary and institutional members, or £15, paid by members under 21 or in full-time education, together with interest on cash held on deposit and donations from members over and above their subscription. The stocks of Special Publications and back numbers of *The British Numismatic Journal* have been transferred to Spink & Sons Ltd, who now act as the Society's distributors.

All officers of the Society offer their services on a voluntary basis, and administrative costs were kept to a minimum consisting largely of stationery and postage.

The Society is actively seeking to increase its membership, both in Britain and overseas, the total of which has steadily risen over the last decade from 500 to more than 600.

**THE BRITISH NUMISMATIC SOCIETY
STATEMENT OF FINANCIAL ACTIVITIES
FOR THE YEAR ENDED 31 DECEMBER 2004**

	<i>General Fund £</i>	<i>Designated Funds £</i>	<i>Total 2004 £</i>	<i>Total 2003 £</i>
INCOME AND EXPENDITURE				
INCOMING RESOURCES				
Subscriptions and Entrance Fees received for 2004 and earlier years	18,194	—	18,194	17,137
Gift Aid	807	—	807	—
Interest received	1,570	3,158	4,728	4,045
Donations	110	—	110	2,454
Society Medals	191	—	191	183
Centenary Medals and Magpie Dishes	—	804	804	2,721
Sale of Publications:				
Backnumbers	806	—	806	716
Special Publications	—	1,003	1,003	2,803
BNJ Index	7	—	7	60
TOTAL INCOMING RESOURCES	21,685	4,965	26,650	30,119
RESOURCES EXPENDED				
British Numismatic Journal	11,186	—	11,186	24,723
Special Publications	—	200	200	7,401
CCNB Newsletter	—	—	—	728
Sanford Saltus Medal	213	—	213	188
Provincial Meetings	352	—	352	—
Centenary Meeting	—	—	—	4,919
Linecar Lecture	—	—	—	500
Centenary Medals	—	172	172	2,142
Society Medals	61	—	61	137
London Meetings	647	—	647	533
Council Prize	—	—	—	—
Library	347	—	347	839
Subscriptions	131	—	131	184
Bank Charges	120	—	120	120
Other printing, postage and stationery	1,616	—	1,616	2,026
TOTAL RESOURCES EXPENDED	14,673	372	15,045	44,440
NET INCOME/ (OUTGOING) RESOURCES				
BEING NET MOVEMENT IN FUNDS	7,012	4,593	11,605	(14,321)
FUND BALANCES				
brought forward 1 January 2004	35,289	71,012	106,301	120,622
FUND BALANCES				
carried forward 31 December 2004	42,301	75,605	117,906	106,301

THE BRITISH NUMISMATIC SOCIETY

BALANCE SHEET AS AT 31 DECEMBER 2004

	2004 £	2003 £
GENERAL FUND	42,301	35,289
DESIGNATED FUNDS	<u>75,605</u>	<u>71,012</u>
	<u>117,906</u>	<u>106,301</u>
ASSETS:		
Library and Furniture at cost less amounts written off	160	160
Stock of Medals	174	224
Sundry Debtors	2,880	5,643
Cash at Bankers and in Hand		
Bank – Deposit Account	127,000	135,000
Current Account	<u>15,272</u>	<u>3,658</u>
	<u>145,486</u>	<u>144,685</u>
LIABILITIES:		
J. Sanford Saltus Medal Fund	400	200
Subscriptions received in advance	3,113	3,114
Sundry Creditors and Outstanding Charges	2,568	2,851
Creditors and Provision for Journals	<u>21,499</u>	<u>32,219</u>
	<u>27,580</u>	<u>38,384</u>
	<u>117,906</u>	<u>106,301</u>

Registered Charity No. 275906

The accounts were approved by Council on 25 October 2005

THE BRITISH NUMISMATIC SOCIETY NOTES TO THE ACCOUNTS FOR THE YEAR ENDED 31 DECEMBER 2004

1. Accounting Policies

Basis of Accounting

These accounts have been prepared under the historical cost convention, and in accordance with applicable accounting standards and the Statement of Recommended Practice on Accounting by Charities.

Fixed Assets

No value has been attributed in the balance sheet to the Society's library. The joint library of the Society and The Royal Numismatic Society was insured during the year ended 31 December 2004 at a value of £185,000. The books are individually labelled as to which Society owns them, but for the purposes of practical day-to-day administration and the sharing of costs, one-third of the library is taken as belonging to The British Numismatic Society.

Stock

No value is attributed to the Society's stocks of Special Publications and *The British Numismatic Journal*.

Subscriptions

No credit is taken either for subscriptions received in advance or for subscriptions in arrears at the balance sheet date.

2. Designated Funds

	<i>Linecar Fund £</i>	<i>Osborne Fund £</i>	<i>Benefactors' Fund £</i>	<i>Total £</i>
INCOMING RESOURCES				
Interest received	470	2,599	89	3,158
Sale of Special Publications	—	1,003	—	1,003
Centenary Medals	—	—	804	804
TOTAL INCOMING RESOURCES	<u>470</u>	<u>3,602</u>	<u>893</u>	<u>4,965</u>
RESOURCES EXPENDED				
Special Publications – Durham	—	200	—	200
Centenary Medals	—	—	172	172
TOTAL RESOURCES EXPENDED	<u>—</u>	<u>200</u>	<u>172</u>	<u>372</u>
NET INCOMING RESOURCES				
BEING NET MOVEMENT IN FUNDS	470	3,402	721	4,593
FUND BALANCES				
brought forward 1 January 2004	10,572	58,437	2,003	71,012
FUND BALANCES				
carried forward 31 December 2004	<u>11,042</u>	<u>61,839</u>	<u>2,724</u>	<u>75,605</u>

The General and Designated Funds are all unrestricted.

The Linecar Fund was started in 1986 with the bequest of £5,000 and Council has designated this Fund to provide an endowment for a biennial lecture in Mr Linecar's memory.

The Osborne Fund was started in 1991 with the bequest of £50,000 and Council has designated this Fund to finance the series of Special Publications.

The Benefactors' Fund consists of other bequests to the Society.

3. Creditors and Provision for Journals

	£
British Numismatic Journal 74 (2004), published December 2004	9,499
British Numismatic Journal 75 (2005), to be published January 2006	12,000
	<u>21,499</u>

INDEPENDENT EXAMINER'S REPORT TO THE MEMBERS OF THE BRITISH NUMISMATIC SOCIETY

I report on the accounts of the Society for the year ended 31 December 2004, which are set out on pages 407 to 409.

Respective responsibilities of trustees and examiner

Council as the Society's trustees are responsible for the preparation of the accounts; and consider that the audit requirement of Section 43(2) of the Charities Act 1993 does not apply. It is my responsibility to state, on the basis of procedures specified in the General Directions given by the Charity Commissioners under Section 43(7) (b) of that Act, whether particular matters have come to my attention.

Basis of independent examiner's report

My examination was carried out in accordance with the General Directions given by the Charity Commissioners. An examination includes a review of the accounting records kept by the Society and a comparison of the accounts presented with those records. It also includes consideration of any unusual items or disclosures in the accounts, and seeking explanations from Council concerning any such matters. The procedures undertaken do not provide all the evidence that would be required in an audit, and consequently I do not express an audit opinion on the view given by the accounts.

Independent examiner's statement

In connection with my examination, no matter has come to my attention:

- (a) which gives me reasonable cause to believe that in any material respect the requirements to keep accounting records in accordance with section 41 of the Charities Act 1993; and to prepare accounts which accord with the accounting records and to comply with the accounting requirements of that Act have not been met; or
- (b) to which, in my opinion, attention should be drawn in order to enable a proper understanding of the accounts to be reached.

R.A. Merson, FCA
Tanyard House,
13A Bridge Square,
Farnham,
Surrey,
GU9 7QR.

25 October 2005

THE BRITISH NUMISMATIC SOCIETY

The Society was founded in 1903, and is a registered charity (No. 275906). The object of the Society is:

the encouragement and promotion of numismatic science, particularly through the study of the coins, medals and tokens of the peoples of the British Isles and Commonwealth and the United States of America, and of such territories as may at any time be or have been subject to their jurisdiction.

Membership is open to all persons and to appropriate institutions. Enquiries about membership should be made to the Membership Secretary:

C.R.S. Farthing, Esq.
c/o The Warburg Institute
Woburn Square
London WC1H 0AB

Meetings are held at 6 p.m. on the fourth Tuesday of each month from January to June and September to November at the Warburg Institute. Other meetings may be arranged from time to time. Offers of papers to be read at meetings should be sent to the Director:

Dr K. Clancy
The Royal Mint
Llantrisant, Pontyclun
Mid Glamorgan CF72 8YT

The *British Numismatic Journal* is published annually, and distributed without charge to all members. Persons,

whether members or not, wishing to submit an article or short note for publication should write to the Editors:

c/o Dr D.J. Symons
Birmingham Museum and Art Gallery
Chamberlain Square
Birmingham B3 3DH

To assist contributors in the preparation of typescripts for submission to the *Journal*, and also with the marking up of proofs, Council has agreed to adopt, as far as possible, the conventions set out in the *Style Book* of the Modern Humanities Research Association (fifth edition, 1996).

The Society's library is housed at the Warburg Institute. Members may use the library on presentation of their signed membership card. Books can be sent to members by post on request to the Librarian. Gifts for the library, and books for review, should be sent to the Librarian:

A.J. Holmes, Esq.
c/o The Warburg Institute
Woburn Square
London WC1H 0AB

Annual subscriptions, currently £32 (reduced subscription for those under 21 or in full time education £15), are due on 1 January each year, and should be sent without request to the Treasurer:

P.H. Mernick, Esq.
42 Campbell Road
London E3 4DT

ABBREVIATIONS

ANS	American Numismatic Society	DNB	<i>Dictionary of National Biography</i>
AntJ	<i>The Antiquaries Journal</i>	EcHR	<i>Economic History Review</i>
BAR	British Archaeological Reports	EMC	Early Medieval Corpus of Coin Finds
BL	British Library	JBAA	<i>Journal of the British Archaeological Association</i>
BM	British Museum	MEC	P. Grierson and M.A.S. Blackburn, <i>Medieval European Coinage</i> (Cambridge, 1986-)
BMA	G.C.Brooke, 'Anglo-Saxon acquisitions of the British Museum', <i>NC</i> 5th series, 2 (1922), 214-44; 3 (1923), 243-59; 4 (1924), 86-95, 239-53; 5 (1925), 343-65	NC	<i>Numismatic Chronicle</i>
BMC	<i>British Museum Catalogue</i>	NCirc	<i>Spink's Numismatic Circular</i>
BMS	<i>British Museum Sylloge</i>	NNA	<i>Nordisk Numismatisk Årsskrift</i>
BNJ	<i>British Numismatic Journal</i>	NNM	<i>Numismatic Notes and Monographs</i>
BNS	British Numismatic Society	NNUM	<i>Nordisk Numismatisk Unions Medlemsblad</i>
BSFN	<i>Bulletin de la Société Française de Numismatique</i>	PRO	Public Record Office
CCI	Celtic Coin Index	PSAS	<i>Proceedings of the Society of Antiquaries of Scotland</i>
CH	<i>Coin Hoards</i>	RBN	<i>Revue Belge de Numismatique</i>
CHRB	<i>Coin Hoards from Roman Britain</i>	RIC	<i>Roman Imperial Coinage</i>
CNS	<i>Corpus nummorum saeculorum IX-XI qui in Suecia reperti sunt</i>	RN	<i>Revue Numismatique</i>
CTCE	C.E. Blunt, B.H.I.H. Stewart and C.S.S. Lyon, <i>Coinage in Tenth-Century England</i> (Oxford, 1989)	RNS	Royal Numismatic Society
		SCBI	<i>Sylloge of Coins of the British Isles</i>
		SCMB	<i>Seaby's Coin and Medal Bulletin</i>
		VCH	<i>Victoria County History</i>